

[PRICE 6D.]

This article affords the safest, cheapest, and most expeditious mode of securing  
 any hazardous operation. From many testimonies to its usefulness with  
 all electricians have been favoured from every part of the Kingdom, they  
 are the following:—  
 "I am a member of the Institution of Electrical Engineers, and I have been  
 employed by the Electric Light and Power Company, Ltd., London, and I have  
 been given a thorough knowledge of the great usefulness of the  
 Safety Fuse; and I am quite willing that you should employ my name in evi-  
 dence of this."  
 Manufactured and sold by the Patentees, BUCKFORD, SMITH, and DAVIS, Cam-  
 bridge, Cornwall.



# COMMUNICATION BETWEEN ENGLAND & IRELAND.

—At a Meeting, held on the 14th of February, 1837, at the Thatched House Tavern, St. James's-street.

**DANIEL O'CONNELL, Esq., M.P.**, in the Chair;  
**Marquis of Clanricarde, Esq., M.P.**,  
**Alderman Wood, M.P.**,  
**W. H. Scourfield, Esq., M.P.**,  
**Hewitt Bridgman, Esq., M.P.**,  
**Colonel Powell, M.P.**,  
**C. Fitzsimon, Esq., M.P.**,  
**Frederick W. Mullins, Esq., M.P.**,  
**William Roche, Esq., M.P.**,  
**G. S. Barry, Esq., M.P.**,  
**Lieut.-Col. E. B. Clive, M.P.**,  
**Sir L. Parry, M.P.**,  
**W. S. O'Brien, Esq., M.P.**,  
**Joseph Bailey, Esq., M.P.**,  
**Colonel Owen, M.P.**,  
**James Power, Esq., M.P.**,  
**David Lewis, Esq., M.P.**,  
**Pierce Butler, Esq., M.P.**,  
**O'Connor Don, M.P.**,  
**John Maher, Esq., M.P.**, and  
 Several other gentlemen.

Mr. Quinn having been chosen Secretary to the meeting, and Mr. Heslop, and Mr. Palmer, the Engineer, having left before it their statements as to the progress made in the surveys since July last, It was proposed by James Power, Esq., M.P., seconded by Colonel Owen, M.P., and resolved unanimously,

1. That this meeting, having heard the statements made by Mr. Heslop and Mr. Palmer, is of opinion that a line of railway, to be carried into effect from Gloucester to Fishguard, is calculated to accomplish objects of the greatest national importance; first, by affording a grand trunk, from which branches may be formed to the most populous towns and the richest mineral and agricultural districts of South Wales; secondly, by materially expediting the intercourse between those districts and the metropolis; thirdly, by leading to a harbour on the Welsh coast, whence vessels can come in and go out with any wind, and proceed in a few hours to the coast of Wexford, thereby bringing the two countries into a closer connexion with each other.

Proposed by Christopher Fitzsimon, Esq., M.P., seconded by David Lewis, Esq., and resolved unanimously,

2. That a Company, constituted for the purpose of constructing and managing a Railway from Gloucester to Fishguard, would be justly entitled to the support of the public and of Parliament, and, in an especial manner, of his Majesty's Government, whose duty it is to assist all well-considered enterprises, which combine, with the private advantage of the parties concerned in them, objects manifestly tending to promote the prosperity of the whole empire.

Proposed by W. H. Scourfield, Esq., M.P., seconded by F. W. Mullins, Esq., M.P., and resolved unanimously,

3. That the gentlemen composing the present meeting pledge themselves to watch, with unceasing interest, the progress of an undertaking of the nature which they have this day assembled to consider; and that, in order to give effect to their sentiments in its favour, a Committee be formed to obtain the protection of Government for such enterprise, and to afford to its promoters all the information and assistance in their power.

A Committee was then appointed, consisting of the following members:—  
 Sir John Owen, Bart., M.P.  
 W. H. Scourfield, Esq., M.P.  
 Hugh Owen Owen, Esq., M.P.  
 David Lewis, Esq., M.P.  
 Sir J. Williams, Bart., M.P.  
 James Power, Esq., M.P.  
 C. Fitzsimon, Esq., M.P.  
 J. H. Talbot, Esq., M.P.  
 Lieut.-Col. E. B. Clive, M.P.  
 John Maher, Esq., M.P.  
 C. A. Walker, Esq., M.P.  
 The Hon. G. R. Trevor, M.P.  
 Colonel Powell, M.P.  
 Ralph Howard, Esq., M.P.

James Grattan, Esq., M.P.  
 With power to add to their number—five to be a quorum.  
 (Signed) DANIEL O'CONNELL, Chairman.  
 MICHAEL J. QUINN, Secretary.

It was then moved by Joseph Bailey, Esq., seconded by Sir L. J. Parry, M.P., and carried by acclamation,

That the thanks of the meeting be given to Daniel O'Connell, Esq., for the able and impartial manner in which he conducted the business of the meeting.

**WANTED, A STEAM-ENGINE** of from THIRTY to THIRTY-SIX INCH CYLINDER, either New or Second-hand, and if PUMPS, &c. can be had with it, the more desirable. Communications, with full particulars as to Price, &c., to be addressed to Mr. Henry English, 37, New Broad-street, London.

**LONDON AND GREENWICH RAILWAY.**  
 The Company's CARRIAGES LEAVE their respective STATIONS every QUARTER of an HOUR, from Eight o'clock in the morning until Half-past Eight at night.  
 GEORGE WALTER, Managing Director.

N.B. Stabling is provided at the Deptford station for the convenience of travellers from the interior of the country, or from the neighbouring towns, who may wish to avail themselves of the Railway, and thereby save their horses 8 or 10 miles of road.

**LONDON AND GREENWICH RAILWAY FARES:—**  
 1st class carriages ..... 1s. 6d.  
 2nd class ditto ..... 9d.  
 3d class ditto ..... 6d.  
 Free Tickets (not transferable) may be had at the Company's offices, 26, Cornhill:—  
 1st class carriages ..... £5 per quarter.  
 2nd class ditto ..... 4  
 3d class ditto ..... 3  
 Entrances—Duke-street, London-bridge, and High-street, Deptford.  
 J. F. AKERMAN, Secretary.

**ARIGNA IRON AND COAL COMPANY'S OFFICE, 9, Liverpool-street, London, the 30th of January.**

Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the PROPRIETORS of and in the ARIGNA IRON and Coal Company will be held, pursuant to the Company's Act of Parliament at the Company's office, 9, Liverpool-street, Broad-street, in the city of London, on Monday the 27th day of February next, at 1 o'clock in the afternoon precisely (not 1 o'clock for 2 o'clock), for the purpose of receiving a report of the Directors on the affairs of the said Company; and notice is hereby also given, that the said meeting will likewise be held at the time and place aforesaid for the purpose of taking into consideration a certain proposal then and there to be submitted to the said proprietors of the said Company, for extending the term or time of the licence granted to the present party now working the Company's mines at Arigna; and notice is hereby also given, that the said Meeting will likewise be held at the time and place aforesaid, for the purpose of appointing new Trustees of the Company's Mines, Property, and Effects at Arigna, mentioned and comprised, and conveyed or otherwise assured to the said Company in the year of our Lord 1824, respectively, in lieu and in the place or stead of Peter Moore, Esq., since deceased, and Thomas Dunston, Esq., also since deceased, and Samuel Barrett Moulton Barrett, who is now residing in the Island of Jamaica, in the West Indies, which said Peter Moore and Thomas Dunston, with the said Samuel Barrett Moulton Barrett, were in and by the said several indentures respectively named the then trustees of the said mines, property, and effects of, for, and on behalf of the said Arigna Iron and Coal Company; and notice is hereby also given, that the said Meeting will likewise be held at the time and place aforesaid for the purpose of electing three qualified proprietors to be Directors of the said Company in the place and stead of three Directors who vacate their office by rotation, pursuant to the 27th section of the said Company's Act of Parliament; and also to proceed to the election of an Auditor and Examiner of the accounts of the said Company in the place and stead of one of the auditors who vacates his office in rotation under the provisions of the same 27th section of the said Act of Parliament.

Every proprietor intending to become a candidate to fill any such vacant office must, within fourteen days after the insertion of this advertisement, signify his intention so to become a candidate by writing under his hand, stating the place of his residence and addition, such writing to be left within the same fourteen days at the office of the Company.

By order of the Board of Directors,  
 HENRY ENGLISH, Sec.

N.B.—By the 31st section of the Act the Directors and Auditor going out of office are eligible to be re-elected.

**EAST INDIA AGRICULTURAL COMPANY.**—(To be incorporated by Act of Parliament). For the Culture and Improved Manufacture of SUGAR, COFFEE, COTTON, SILK, TOBACCO, INDIGO, and other Staples of BRITISH INDIA.

Capital, £1,000,000; in 20,000 Shares of £50 each.—Deposit £2 per Share.

The Directors' List and the Officers of the Company and the Prospectuses will be published in a few days.

**BANKERS.**  
 London—Messrs. Messers, Peters, and Co.  
 Calcutta—The Bank of Bengal.

Standing Counsel—D. Pollock, Esq., K.C., and Henry Roberts, Esq.  
 Solicitors—Messrs. Swain, Stevens, and Co.  
 Office of the Company, 53, Old Broad-street.

British India, extending over 500,000 square miles of the most fertile part of Asia, and containing one hundred millions of industrious, skillful, and intelligent inhabitants, peculiarly requires a combination of capital, skill, and energy for the full development of the valuable and varied products of the soil. The recent abolition of exclusive commercial privileges in the east; the enactment of the local Government for facilitating the rent or purchase of land; the abolition of transit tolls in Bengal; the application of improved machinery to various manufactures; the equalization of the duties on the produce of the East and West Indies, when imported into the United Kingdom; the dissolution of the large mercantile firms of Calcutta; the increasing pecuniary drain on the Indian revenues to meet political charges in England; and the consequent desire to strengthen the commercial connexion between both countries; the fact that our cotton manufactures, and 3,500,000 lbs. of tobacco revenues are dependent on the jealous animosity of the United States Government, and on the tranquillity of 2,000,000 slaves; and that the important and lucrative trade in sugar, molasses, rum, &c., and with its 5,000,000 lbs. of revenue, are put to serious hazard by negro emancipation in the West Indies, but, above all, the paramount moral duty of Britain to use every possible exertion for promoting the welfare and happiness of the vast population committed to her care, each and all combine to demand the formation of a Company, which seeking no monopoly or exclusive rights, and relying solely on the economical, judicious, and profitable employment of its concentrated capital, vigilant attention, and skillful agency, may fairly rank with those national institutions, that not only enrich their proprietors, but confer honour, security, and wealth on the whole community of the empire.

The business of the East India Agricultural Company will be conducted by a Board of Directors, sitting in London, and elected by the Proprietors of Stock holding Five or more Shares, by a Local Board of Sub-Directors (two of whom shall be natives of India), sitting at Calcutta, with a Manager deputed from the London Board.

A Court of Proprietors will be held annually for the appointment of Auditors, and receiving the report of the Directors. All further information may be had at the Offices of the Company, No. 53, Old Broad-street, where applications for Shares are to be addressed.

By order of the Board,  
 ROBT. MONTGOMERY MARTIN, Resident Director.

**MR. MACINTOSH**, the Patentee of the well-known "Macintosh Cloth, Coats, Air-cushions, &c. &c.," about a year ago petitioned his Majesty in Council for an extension of the term of his Patent, under the late Act for amending the laws respecting Patents. The appointment of a day for considering the Patentee's petition has been postponed from time to time. The last postponement took place about a month ago, when Mr. Hindmarch, on the behalf of several persons who were interested, moved for leave to enter caveats against Mr. Macintosh's application, which was opposed by Sir William Follett, but the Court granted the motions.

On Monday, the 28th ult., Mr. Watson applied, on the behalf of Mr. Macintosh, to have the hearing appointed, which was opposed by Mr. Hindmarch, on the ground that the advertisements and notices were not in pursuance of the Act and rules of court. But the Court decided that the petitioner might take the appointment at his own peril, and appointed the hearing to take place in April next.

By the rules of the Judicial Committee of the Privy Council, caveats must be entered before the day for the hearing is appointed; but under special circumstances, as has been done in this case, leave will be given to enter them afterwards. Mr. Macintosh has again advertised, that he intends to petition his Majesty, and that he will apply to the Judicial Committee of the Privy Council on the 18th of March next, to have the hearing appointed, before which all caveats must be entered.

Just published, price 3s. 6d.  
 (FORMING THE FIRST NUMBER OF A NEW SERIES),  
 No. IX. of

## THE MINING REVIEW, AND JOURNAL OF GEOLOGY, MINERALOGY, and METALLURGY.

**CONTENTS:**  
 I.—Descriptive Notice of the Quicksilver Mines of Bavaria, by FREDERICK BURN.  
 II.—Remarks on a Section presented by the Cliffs at Tremearne, in the parish of Breage, Cornwall, by R. THOMAS, C.E.  
 III.—Mining Statistics, by JOHN TAYLOR, Esq., F.R.S.  
 IV.—Mineral Topography of Great Britain, by A. W. TOWSE, Esq., M.A., F.G.S.  
 V.—On the Theory of the Formation of Mineral Veins, by FREDERICK BURN.  
 REVIEWS.—Dr. Duckland's Bridgewater Treatise—Dufrenoy on the Use of Hot-Air in Iron Furnaces—Smith's Miner's Guide; and other publications connected with Mining, Geology, &c. &c.—Tabular Statements of the Produce of Mines, Duty of Steam-Engines, &c.; with a copious MISCELLANEA from Scientific Works.

The publication of the MINING JOURNAL has, from the nature of the papers which are inserted, and the success attending it, in some degree anticipated the MINING REVIEW, with reference to Mining Companies, as it furnishes weekly the Correspondence from Mines, and the Reports of Public Meetings, while the numerous original articles on Geology and Mineralogy which it contains, have rendered it perfectly original and unique. From this circumstance, it will be apparent that the MINING REVIEW should undergo some change, among which, one that presents itself is that of Price, which will in future be reduced from 5s. to 3s. 6d., while the matter will be more select; a large portion of it comprehending, as heretofore, original papers, and the residue, extracts from the MINING JOURNAL, and from Foreign works, with tabular-matter, &c. The numbers will be accompanied by plates, illustrating the subjects treated on, and although the price be reduced, the articles will be of equal value with those in the preceding numbers.

The Contents of No. VIII. are the following:—  
 ORIGINAL COMMUNICATIONS: 1. On Metalliferous and Mineral Deposits.—2. Analysis of the Mexican Process of Amalgamation.—3. The Mineral Topography of Great Britain.—4. Geological Survey of the Carn Menellis District, Cornwall.—5. On Civil and Mining Engineering.—6. Schaufelen's Hot-Air Furnace Feeder.—7. On the Occurrence of the Precious Metals in Great Britain.—8. Proposed Plan of Geological Survey.—9. On Pumps used in Mines.—10. Visit to the Quicksilver Mines of Idria.—11. On the Auriferous Rocks of Virginia.—12. On the Ventilation of Mines.

MISCELLANEA: Geology—Preservation of Cast-Iron Pipes—Mechanical Power of Steam-Iron—Malachite—Pary's Mountain—Effect of Heat on Mineral Substances—Exports of Metals—Application of the Hot-Blast—Steam-Engines—Tin—Gradual Rising of Land—Surprising Escape of a Miner—Density of the Earth—Antediluvian—Silver Mines—Fossil Equiseta—Gradual Elevation of parts of Sweden—Blasting Rocks—Palladium—Masses of Meteoric Iron in Mexico—Gold Mines in North Carolina—Artesian Well—Mineral Produce—Artificial Felspar—Petroleum—On the Occurrence of Metals in Rocks—Tin Boudins—Analysis of a Fossil Tree—Diamond Matrix—Importation of Coal—On the Cementation of Iron—Geognostic: Abstraction of Tin coined in Cornwall and Devon; and particulars of Copper Ores purchased by the Companies in Cornwall and Swanses—Weekly Sales of Copper Ore at Tiekings in Cornwall—Produce of each Copper Mine in Cornwall, with a Summary—Workings of the various Mines in Cornwall, &c.  
 An Advertising Sheet will accompany the new series of the MINING REVIEW; it will be devoted to advertisements connected with Mining, Public Companies, Scientific Publications, &c., which will thus be widely circulated, and brought immediately under the notice of the parties interested in them.

LONDON: Published by SIMPKIN and MARSHALL; and may be had of every bookseller in the United Kingdom.  
 THE MINING JOURNAL AND COMMERCIAL GAZETTE.  
 The only Newspaper exclusively devoted to Geology, Mineralogy, and Metallurgy; combining the Reports of the Proceedings of Public Companies, Correspondence from the Mining Districts, Sales of Ores, Prices of Shares, Mines, Railways, Canals, &c., with Parliamentary Summary, London Gazette, and much original and interesting Scientific Intelligence, &c., is published every Saturday, price Sixpence, and may be had of all newsvendors in town and country.  
 Office, 12, Gough-square, Fleet-street London.

**PARLIAMENTARY SUMMARY.**  
**HOUSE OF LORDS.**  
**MONDAY.**  
 The Marquis of LANSDOWNE presented, by command, the report of George Nicholls, Esq., on the subject of Poor Laws for Ireland.

**TUESDAY.**  
 The Registrations Acts Suspension Bill was brought from the Commons, and, on the motion of Lord MELBOURNE, read the first time.  
 The Earl of WINCHILSEA, on the presentation of some petitions, and complaints by Lords Coventry and Salisbury, expressed a hope, that in future Railroad Bills, some provision might be introduced to compel parties, whose names often had the effect of promoting the passing of such measures, to proceed with the completion of the works; and to compel them to adhere to engagements as to lines, instead of afterwards applying, to evade bonds, &c., for bills to alter the lines. At present bills were often procured, and on estimates for which the works never could be finished; but as soon as obtained, the original parties too often backed out, and left others to carry on the works, for which they, in some degree, stood pledged to Parliament. He was by no means the enemy of railroads, but he thought the public ought to have some such security.

**THURSDAY.**  
 The Grand Jurors (Ireland) Bill was brought from the Commons, and on the motion of Lord DUNCANNO, it was read a first time.

**FRIDAY.**  
 The Irish Grand Jury Act Amendment Bill, on motion of Lord DUNCANNO, was read a second time. The Registration, &c. Acts Suspension Bill went through a committee, with an amendment. Had it passed as forwarded from the Commons, no marriages, except by licenses, could have taken place till June 30!

**HOUSE OF COMMONS.**  
**MONDAY.**

Lord JOHN RUSSELL obtained leave to bring in a bill to extend Poor Laws to Ireland.—A new writ for Staffordshire was ordered to be issued.—On the second reading of the Post-office Packet Bill, Mr. WALLACE inquired whether the Government contemplated any alteration of the Post-office system.—The CHANCELLOR of the EXCHEQUER answered, that as many parts of the system must come under consideration this session, it would be better to defer details until such opportunity arrived.

**TUESDAY.**  
 Sir W. MOLESWORTH moved for leave to bring in a bill "to Abolish the Property Qualification of Members of Parliament," which led to considerable discussion. On the House dividing the numbers were—for the motion, 104; against it, 133.

Mr. WARBURTON gave notice that, on Wednesday, the 22d, he would move for leave to bring in a bill "to Amend the Laws relating to the Property Qualification of Members to serve in Parliament."

Mr. MACKINNON obtained leave to bring in a bill to Alter and Amend the Patent Laws, and for better securing to individuals the benefit of their inventions.

Mr. O'CONNELL brought forward his motion for a bill to Amend and Declare the Law of Libel.

**WEDNESDAY.**  
 Lord STANLEY, as one of the trustees of the British Museum, stated, in answer to Mr. Hawes's inquiry, that the recommendations of the Commons' Committee regarding the British Museum, were likely to be forthwith carried into very full effect, especially as to the opening of that national collection on holidays, extending the time for keeping open the reading-rooms, &c.

The Municipal Corporations Act Amendment Bill was considered at great

length in Committee, but the further consideration of the bill was postponed. The Imprisonment for Debt Abolition Bill was read a second time. The Vagrants' (Scotland and Ireland) Removal Bill was read a second time. Mr. ROBINSON obtained leave to bring in a bill to Amend the 3d and Wm. IV., c. 85, so far as it relates to the compensation provided for maritime officers of the East India Company.

**THURSDAY.**  
 The Registrations Acts Suspension Bill was read a second time.—Lord RUSSELL obtained leave to bring in his Bill to restrain pluralities.—C. LUSHINGTON moved a resolution declaratory "That it is the opinion of the House, that the sitting of the bishops in Parliament is unfavourable in its operation to the general interests of the Christian religion in country, and tends to alienate the affections of the people from the established church." Sir R. PEEL opposed the motion. There was a division on ayes, 92; noes, 197; majority against it, 105.

**FRIDAY.**  
 The Post-office Packet Bill, for removing the appointment of packets to the Admiralty, went through committee. On the motion of JOHN RUSSELL, the Municipal Corporations, Ireland, Bill, was read a second time. The report of the Municipal Corporation Act Amendment Bill was afterwards considered.

## ORIGINAL CORRESPONDENCE.

### ENGLISH MINING IN THE SEVENTEENTH CENTURY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Returning to the curious old volume from which I lately forwarded you some extracts, I select the following letter to Mr. Bate, "relating some strange accidents which happened in the Mines," as being a remarkable contrast to the "mining correspondence" of the present day. It appears that a deep adit had been driven by Mr. Bate to unwear some mines at Talybont, a village in the north-western portion of Cardiganshire, a few miles north of Darren and Cwm symlog, before mentioned. The sudden holing of this adit to the workings of the mines, which had nearly been attended with fatal consequences to the miners, and another incident which I suspect to be somewhat apocryphal, together with the writer's comments upon them, form the subject of a letter referred to:—

"Honoured Sir,—Suffer my congratulations of your late success at Talybont, to be admitted amongst the rest who have represented the same your imagination: not so much for the historical report of it, as for your relation on it; so it becomes my quality, for the rest are interested, I am on. Your Adit or great drift of Talybont, after above 200 fathoms in the air, driving to come at chief shaft of the old down'd workings of the fathoms deep, being peared by the water of the old worke, I am on at midnight these befell two memorable accidents. The four worke about one in the night (as there manner was) withdrew to take Talybont within ten fathoms of the Aditts mouth, lest in the forefield it should the ayre, which was conveyed to them by your leaden pipes with belated. Their smokin banquet was not yet at an end, when they heard a mighty fearful noise, which some of them said was thunder. But old Bartholomew Clocker (a well experienced Miner) although he left the worke without suspicion of so neere an approach, resolved suddenly, the worke is in. Come let us away. No sooner had they gotten the free ayre, heay to gusheth the torrent of water with an incredible fury, such a breach it threw in the solid Rocks, that it arose a full yards high at the Aditts mouth, drove away above 100 Tun of the rockie deads, affrighting the people of Talybont, who heard the noise and felt the water in their houses. I do remember that I was ever more astonish'd at the prodigiousness of this spectacle, to see what perdition was threaten'd to the poor men, and how so to escape it. About four hours after, the violence of water being further Fisher one other of the Miners went in with more curiosity than wit, what what effect it had wrought there: and being some sixty fathoms in crease, very low, his candle enkindled a vapour, which came on him with three or four flashes, and he suddenly returning had his hair burnt off, and his clothes scorched, in which conclusion it gave a crack like the report of a peece, and in a fierce gust of wind blew out the Candles of three more, ming after him. To omit the Philosophical inquisition of natural causes, I account his preservation in as high a degree of wonder as the first. I happy are you here when least you think of it, for I find the subterranean spirits, the supposed guardians of concealed treasure, as officious for you, if they were in pay with you. But in a stile more proper to my pen, hold Sir, how dears you are to providence, which for your sake hath vouchsafed to digress into a miracle, and such a one as is able to convert the Sophistical Atheist, whence your piety will inferre, that the gracious Author of this incomparable bounty, expects from you some grateful service, as above ordinary (according to mortal capacity) in this favour hath been extraordinary. We are all deeply in the same engagement, and have learned this experiment, that these Aditts or approaches (for that's the sense of name of old deluge worke) are attempts of desperate hazard. Methinks these Mountains are as so many pregnant wombs, and now in labour for your fortunate hands to deliver them, to the honour of your Royall Majesty, and perpetuated glory of the Nation.

"What should you doubt in an employment so serenely smil'd upon? In the highest both of Heaven and Earth? You use no enchantment, or the Cretical Rod to discover the veins; your only magicke, is an ingenuitie to the lecture of probabilities, with a cheerful and indefatigable industry, to the hath hitherto succeeded beyond expectation of most, and (peradventure) desired of some. But who (as Agricola makes the question) that is not the nature imposson'd with envy, and malifousnesse, can beare unfavourable thoughts to him, whose substance is in a manner presented by the labor God.

"I know it would be a motive of very feeble operation to tell you of Princes and States have raised their Crowns, by descending into the abysses as these; with some of whom wanton antiquity hath been pleas'd to sport her selfe, and to play upon the simplicity of many, as Midas, the Argonauts, Ceresus, with the States of Athens, over whose Miners many that renowned Thucydides a Prefect, as you are here. Of which Plater Colliers what may be worthy your attention, when he sales of them, they were in a fruitlesse soyle, and on the hills, (as these with us.) And when the ever one vein was found, it was not far from another; among which one called Bebelo, that afforded him 300. pound weight of Silver a day; the Sir

"These were then the veins which conveyed the blood and spirits of the through all the limes of his victorious Host. And have you not heard how Brittaines Astoria before you? Who knows whether it may not yield for buildelo? at least a Seneberg or Anneberg, who hath heretofore dream'd of it, as at Cosmochio, or of the happy lot you lately drew from the Mountains to the Keginian, Talybont, the Darren, Broom-Floyd and Cum-mervin? But did the outside of these promise you more then the countenances of your neighbours? But the complaint of learned Dr. Jurdan may here talke of that much silver was lost, for want of taking it out of Lead-Oares, &c. whereas those Oares which are rich in silver are commonly hard of access, and our mineral men neglect those Oares. No doubt many are conceiv'd for reason they are Mines-Royal.

"Where had been the Woods and Forrests yet undestroyed on these headed Promontories that might suffice had you not taught the earth to give you all, and the worthless valley, to meete the barren hill, by seed-fewell, to give forme to the matter: so that here is a rich bequest to posterity, I mean your Eternizing the worke, by preventing the exting water, and defect of fire. I have no more, but to signify my confidence as your desires are set on the materiall Rocks of Wales and Eastons, as your better affections be firmly grounded upon the Rock Christ Jesus, and tempest may be able to shake you, when the Sandy projects of other layd to nothing by the floods they are built upon. Which will give you comfort and satisfaction to you then can be expressed by your

"True Friend and Servant,  
 "Julii 4. 1641."  
 "THO. BROADWAY."

It appears from this letter, that the means possessed at the time, for draining mines must have been extremely defective, since a mine but eight fathoms in depth, could only be unwatered by an adit, which required four years to drive. It is worthy of remark, that, in driving adit, air was conveyed to the adit through "leaden pipes," and forced by a blowing machine. As regards the two "strange accidents" which the writer digresses with so much complacency, the sudden outburst of water from the old works may not be very surprising; but as the explosive vapour encountered, I must confess myself rather surprised. The effect stated to have been produced, is not unlike a slight explosion of the "fire-damp" of our coal-mines, but the existence of carbonic hydrogen, or any other inflammable gas in the lead-mines of Cardiganshire, situated entirely in slate rocks, appears certainly very improbable.

The following is Mr. Bushell's answer to the above letter from Broadway; his remarks show how little confidence was entertained persons generally in mining speculations at that period:—

"M. Broadway,—Your true relation, and lively expression of the curious delivery of the poor Miners from the deluge of Waters, which forth upon the cutting through of Talybont Mountains, seemeth by the tents of your Letter to promise no other reward, to the first discoverer, then imminent danger of present death, in which, as in all things, we ascribe the glory to God alone, and as the children of Israel were to many hard accidents in those deserts, so must we resolve to encounter that the



After storms before we can discover Nature's riches hidden in those mines, and who can express my sufferings, pricing my reputation for fame flying with the wings of malice, desirous of a period to these my harmless endeavours, hath made as you partly supposed friends, to become my professed foes, and my nearest in blood, my greatest sorrow, leaving me as naked, as was Job in his greatest affliction, some constraining these my Mineral adventures to be but the work of a fantasticke braine, others alleging that the greatness of my charge would ruin both me, and those who gave me credit, whereby those who conferred on me timely courtesies, instead of encensing, or censuring, were moved to presse me to more speedy payment, then my abilities were able to make good. What throes of sorrow perplexed my thoughts in these deepe engagements, I leave to you to judge. I therefore hasten my coming downe, to settle the affaires of this great mine, that I might redeeme the mispent time of my youth by some memorable assigne in my age, the hopefullnes whereof you are pleased so to honour, which I trust will give livelihood to many, injury to none, and be much honour to our Nation, which was ever the height of my ambition, desiring to rest content with whatsoever the wise disposer of all should condescend upon me, and hereafter to leave those friends in trust, whom I found thereby both to pay themselves, and satisfie others, to whom I stand indebted. And thus with many thanks for your kind letter, and good counsaile, shall ever remaine

"Your faithful friend,  
"THO. BUSHELL."

The following "certificate from the Miners presented to the right hon. Lord and others of his Majesties most hon. Privy Council," proves the vigour with which the operations for unwatering and re-working the mines were carried on, and afford some insight into the state of mining in the period referred to. The paragraph stating that there had been "cut and hauled fathome through the Rock at the lowest levels north and south, for discovering the lost veyne of Cum-sum lock, lying east and west," is rather obscure; it appears, however, to intimate that an adit or cross-cut had been driven that great distance, in order to find the vein in place where it had experienced some heave or disorder, and certainly indicates great perseverance in a search of this kind, greater, perhaps, than should even find at the present day.

"May it please your Lordships,—According to your commands, We whose names are under written, being Miners, Smelters, Refiners, Carriers, Ashers, and Monyers belonging to his Majesties Mines-Royal, in the County of Cardigan, in all humility doe certifie of our certain knowledge and experience, concerning the new works lately discovered by Gods providence to Thomas Bushell Esquire, Farmer of his Majesties Mines-Royal in these parts, that the said Master Bushell at his inestimable charge, having cut six Fathome through the Rock at the lowest levels, North and South, and discovering the lost veyne of Cum-sum lock, lying East and West, two Fathome through the Mountain of Tallybont, at sixty Fathome particular, three severall Addits at Kogineau, one above another, twenty, thirty Fathome center, another at the Darren, to come under the Roanoke, at an hundred Fathome center, another at Bryn-Lloyd fifty five in length, and thirty Fathome Center, working day and night for the raising of the water, which formerly in the time of Customer Smith, and Hugh Middleton in their workings of the Mines-royal was never used, by which working upon the Superficies of the Earth, the works being with water before they could sink to the best of the veyne, both for quantity and quality, and so the charge made to exceed the benefit, which is prevented by the aforesaid Addits, and the Royal Mines become profitable, especially by the assistance of his Majesties mint, for the speedy payment of all those that are employed in the said works, and Mr. Bushell's intention to save Wood, by reducing the Ore into Lead, and Silver, with Sea-cole Charred, which happy invention had it not been found, the works must needs have been unwrought, the country not able to supply necessary Fewell. And further by the prohibition of transporting Ore unwrought, that holdeth silverworth the refining, which unconformity of transporting formerly, His Majesty in his Princely wisdom to be very prejudicial, even to the utter overthrow of his Mines Royal. We have therefore great reason to be confident that this way of working, by restraint of transporting Ore, will in short time greatly increase the wealth of this Kingdom, for the honour of the King, and good of the people, which would be otherwise an unsupportable burthen to this barren country, who by their present labour in these Mines are able to subsist with families, and thousands more might be daylie set on worke, if Mr. Bushell's undertakings in the Mines Royal may be confirmed for a certain time by this present High Court of Parliament."

This certificate is appended nearly ninety signatures of "Miners," "Refiners," "Smelters," and "Washers," about two hundred being stated to be omitted for brevity.

The following "true note of Mr. Bushell's yearly charge concerning Silver Mines," conveys a great deal of curious information as regards the expense of mining and smelting at the time:—

Expenses to the Officers of the Mynt	140
the Coyners	100
the Steward	100
the Clerk	30
and for severall Tenements where Sylver Oare is digged	80
the	300
Synbole	600
Chyrecole	130
iron and steale	200
Cables spent	200
Reyes for the shafts	100
Reyes for the Works	250
Reyes-ashes to refine the Sylver from the Lead	200
Carrying Mills, Bellows, and Tooles	100
Copper, Argoll, and Salt-pecter	60
Iron-Pots wherewith to melt Sylver, for Stamps, and Tressells	50
Chief Refiner	30
Other Refiners	80
the Smiths	40
the Steward and Clarke of the Melting and Refining Houses	70
Carrying the Works, making Fats, and boring Plamps	60
Building Offices for the Mynt in Aberstwith castle	500
cutting 600. fathome through the Rock of the Darren Mountaines,	
and the lost veyne in Cumsumlock	960
cutting through the Mountaines of Tallybont, Darren and Browne-	
and three Addits at Goygenau	1600
carriers and Oare-washers	900
charge of keeping 3 Teams for the carrying of wood, coale,	
and other materials	300
charge in discovering the Mynes at Commarten in Devonshire and	
bookshire	520
due to the Lady Middleton in Cardiganshire	400
cutting of Oare in all the Works	3610
Summa totalis.—11660. Pounds."	

period when the resources of mining were so small in comparison with they now are, when the subject was involved in so much mystery, and is evident from the preceding letters, speculations of this kind are so little of the public confidence, it is not astonishing that a adventurer, such as Mr. Bushell certainly was, should feel rather unwith a yearly expense of eleven or twelve thousand pounds pressing upon him, and have endeavoured, as we see from his memorials, to obtain royal patronage to his undertaking.

Respecting shortly to close the preceding notice, by another extract or from the work.

I remain, Sir, yours, &c.  
FREDERICK BURR.

#### THE DIVINING ROD.

TO THE EDITOR OF THE MINING JOURNAL.

There are few things more gratifying in the progress of science, than when it is able to confirm the truth, and point out the occurrences apparently inexplicable. There are many facts which have been hitherto either denied or disbelieved; or if admitted, have been ascribed to the tricks of impostors upon the credulous. Among these facts the power of the divining rod, or that of designating the place and site of lodes, metallic veins, and springs, stands foremost. It is involuntarily possessed and unwittingly exercised this power, do with the idea of its being an imposture, and, therefore, necessitate look out for some explanation. It occurred to me, whilst reading the Mining Journal the paper on Mr. Fox's experiments on the electric state of the lodes, as different from that of the surrounding country, that the whole might be referable to and simply explained by the peculiar susceptibility of some constitutions to electrical power. What makes this idea the more plausible, is the well-known fact, that the possessors of this delicate tact, were chiefly young and sensitive, generally, from its exciting and exhausting consequences, being agents. Moreover, like the results of electricity, this power

varies in the same individual at different times, and under different circumstances; sometimes the operator being quite torpid and incapable at others as unpleasantly excited. If it be objected, that electricity in its natural conditions does not and cannot produce such excitement and emotion in the human frame, I beg leave to state that, setting aside its effect when applied through a machine, that I, as well as other medical men have met with constitutions exquisitely susceptible of atmospheric and electrical influences. I have witnessed cases where they have been felt to a painful degree. In one instance, the tremour, agitation, and excitement was so great on the approach of a violent thunder-storm, that the lady generally took refuge in bed. In another case, the mental excitement on the occurrence of lightning was so great as to make the terror almost amount to insanity; not, as the lady said, from foolish and unfounded fear, but from an inexplicable nervous feeling. Surely these facts will allow me to assume that electricity may exert an influence on the system of some individuals, where the constitution is peculiarly predisposed, under circumstances and by quantities not usually noticeable. May not, then, the different state of electricity existing in lodes, &c., make itself sensible in the muscular and nervous system of some individuals, and thus cause the rod to turn and point downwards. I am aware this is mere conjecture, the truth of which might soon be ascertained by a few experiments; and it is in the hope that among the readers of your useful and interesting Journal, some lover of science, who has opportunities denied to the writer, may be induced to examine and arrive at the truth of this conjecture. With every good wish for the success of your independent Journal, I am, Sir, your constant reader,

MEDICUS.

#### CHILIAN BONDS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—It has probably escaped the notice of many of the holders of bonds of the Chili Government, that that republic in July last, passed a law, authorising the appointment of a commissioner to proceed to England to effect a compromise with the creditors there. What may be meant by a compromise it is impossible to say, but it doubtless means that the bondholders are to be called on to make some sacrifice of their just claims on this government, in respect either of the principal, or the large arrear of interest due (upwards of ten years). If the Government mean to propose any thing so unfair, the bondholders ought strenuously to resist it, for with what face can a Government, with a paltry debt like that of Chili, come forward with a proposal for their creditors to give up any portion of their claims? The loan originally was for 1,000,000. sterling, but I believe the whole of this was not issued; and with what was brought up by the sinking fund, during the years the dividends were paid, and otherwise, they can owe now only somewhere about 800,000. principal, besides ten years' interest, which would be 480,000. more. And what, sir, is this sum of 1,280,000. to a state which, by its own showing, owes little if any home debt, and which has a trade with this country alone, of upwards of a million sterling annually? The least the commissioner can possibly offer is, to fund the back coupons into a new stock, say a five per cent. at sixty or sixty-three, which is about what is due on each bond, with the interest on the whole to commence instant; and the interest on the whole for the state of Chili to pay, would be then only 88,000. per annum, which they are able to meet without difficulty. This is much less than Portugal did three or four years ago; she paid off the whole of her five years' back coupons in hard cash, except twelve months, and for these, debentures were given bearing interest, which were punctually paid when they became due. And this she did with a heavy home debt, and on a much larger stock than the Chili government owes, and every half year's dividend has been since regularly paid. Nothing is wanting but the inclination on the part of the part of the Chilean people to tax themselves, to get rid of their whole foreign debt: their copper, as appears by the weekly sales, is some of the richest in the world; their surplus revenue is yearly increasing, their mines very productive, and they are making roads and canals in all directions through their country. For years past they have appropriated to their own uses the revenues destined to pay the English creditor. Let them only tax themselves, and they can pay every farthing of their foreign debt, principal and interest, in sterling money down. At the meeting which will doubtless soon be called, for the purpose of expounding this compromise, it is to be hoped that some one will be there, able to explain these facts, and to press on the commissioner and the meeting, the bounden duty of the government to do the utmost they possibly can to re-establish their own good faith, and satisfy their creditors, who, after having waited year after year, constantly buoyed up with promises as constantly broken, are now talked to about a compromise on a paltry debt of a million and a quarter sterling. If I am not exceeding the space you can spare in your valuable columns, I shall be greatly obliged by your inserting this letter, or any part of it you think proper, especially as I observe, that at a meeting recently held of the Columbian creditors, resolutions have been proposed to convert all the arrears of interest, and even half the current dividends for a few years to come, into a deferred stock; and that, too, upon such terms as causes one to wonder that they should have been proposed, viz. the giving fresh bonds for the interest *at par*; which is, in fact, raising a new loan at *par*, and which none of the South American governments have hitherto succeeded in doing. When the Mexicans made a composition some years since, they funded the arrears into six per cent. deferred bonds at seventy-five, not presuming to do so at *par*. However, it is stated that the Columbian republics are very poor; the republic of Chili, on the contrary, is known to possess ample means, and it behoves their creditors to look thoroughly into this matter, and to insist on full justice being done them.

I am, Sir,  
Your most obedient servant,  
C. E.

London, Jan. 17.

#### BOLANOS MINES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—As your correspondent, who has twice drawn attention to the Bolanos Mining Company's affairs in Nos. 69 and 74 of the Mining Journal, rested on the importance of the subject, and deemed an apology unnecessary, I trust you will not object to insert the few following remarks; with which it was not my intention to have troubled you, had not your correspondent in his second letter (doubtless, in his over-anxiety for the welfare of the proprietors and the concern), in reference to the proceedings at the Bolanos mine, intemperately asked how long is the *humbug* to be carried on? But I shall be brief on this point, as I believe I need hardly say to you, that no one who knows the directors and manager will for a moment even suspect that in this work they have sanctioned, or will sanction, or support anything to which *humbug* can in any sense be justly applied; independent of the circumstantial evidence of their being themselves largely interested in the concern, and to such an extent (if I am rightly informed) that one individual member of the board is the proprietor of considerably above 100 shares; besides, this derogatory appellation comes ill from your correspondent, seeing, in his first letter, he said, "I impute nothing to the directors" (meaning I suppose nothing improper); and further, on a careful perusal of the reports and other documents which from time to time have been open to the inspection of the shareholders, that there is "a well-founded hope to go upon," and that the works have been proceeded with in the best and most expeditious manner the situation of the mines and the difficulties of their execution would admit of. I purpose now to remark on the principal points referred to in the letters under consideration, and, first, with respect to the separation of the two concerns, the Bolanos and the Veta Grande, a measure which I, too, am rather disposed to advocate; but it appears, a very large majority of the proprietors are against it,—I believe there are nearly 200 shareholders, of whom, it is stated by your correspondent, thirty-three signed a requisition requesting the subject of separation might be considered; but when the matter was brought forward at the meeting, not half-a-dozen of the requisitionists attended; from what cause is not known: had they, however, been very anxious about the matter, or had they not confidence in the directors, they doubtless would have attended; or it might have been, that however desirable the measure appeared to the requisitionists, the absent ones might have been inclined to think with myself, that from the very large majority, both in number and interest against the measure, we may have taken a wrong view of it; and that as this large majority includes those who have watched over the progress and proceedings of the concern from the beginning, and who, consequently, are really and truly best acquainted with the desirability of the measure, and the fittest time for doing it. It therefore appears to me, that what the separatists have to do, is to keep their wishes alive, by bringing the subject occasionally under the consideration of the directors

and the other shareholders, as done at the last general meeting; so that the object may be effected, whenever it shall appear to the majority, including those most deeply interested and best acquainted with the matter: and as I am more inclined to wait, so I am, also, to recommend to others to wait their decision rather than run counter to their judgment and discretion, in company of so small a number as thirty-three, of whom I am informed not one sixth attended the meeting when the matter was considered and discussed. And further, as to the principle upon which part of the produce of the Veta Grande mines has been expended on the Bolanos, may it not be asked, was not the company originally formed for working the Bolanos mine alone? and were not the inducements there alone offered, considered abundant for the undertaking? were not the Veta Grande mines taken sometime after the Bolanos? and was not a very large sum expended on them out of the capital for the Bolanos mines, say 700,000 dollars and upwards, before the Veta Grande became profitable?

It is an old adage, but not therefore the less true, "that hope deferred maketh the heart sick;" and this, I am ready to allow, is evident in the case before us, that delay has in many persons almost obliterated all recollection of the real inducements for undertaking the re-working of the Bolanos mine; but this ought not to be the case, and parties interested should not carelessly sacrifice the property which now (according to the best information obtained) should be considered, as speedily affording profitable results; for it should be remembered, that most probably within one year more, the deepest parts of the Bolanos (Barranco) mine may be unwatered, explored, and a level driven under them. Then surely after the extraordinary efforts that have been made by the present company, the amount they have expended on the Bolanos works, the value of the available assets on the spot (which more than twelve months ago were estimated at nearly 150,000.), the near approach of the time when it may reasonably be expected the real state of the concern will be fully developed, it seems most desirable that all the advantages so justly anticipated and so near at hand, should be kept entire for the benefit of those who have persevered in the great works, and the separating of the two concerns be postponed a short time longer.

Again, "What," says your correspondent, "is the foundation on which the directors are proceeding, and what, if any, the specific information of so well authenticated a nature to justify it? If any, lay it before the proprietors." These appear to me questions that would hardly be asked by any one who has been, as he says he has, "in the habit of reading the reports furnished to the shareholders from time to time;" and if he has done so, I should still less expect he would say, "There was not a single fact to rest a well-founded hope on." Let the report made to the annual meeting in 1827, and remarks in some of the succeeding ones be perused, and it will be readily acknowledged, that scarcely any mining concern was ever undertaken with better grounds for a successful issue than the Bolanos mine—evident from the assertions there made, which from time to time, and from various sources, have been repeatedly confirmed by traditionary and other evidence: and it should be remembered, and may here be mentioned, that as respects the Real del Monte mines, which have now been explored to their greatest depth, the statements made respecting them, which formed the grounds on which their re-working was undertaken by the present company, have been found correct to the very letter. This, then, should be considered a weighty circumstance in favour of the results which may be found as regards the Bolanos mine when unwatered and explored. But a still greater evidence of the correctness of the statements upon which the re-working of the Bolanos mine was undertaken by the present company, and which I think must be considered as strong evidence of their truth as can be, short of the actual proof of exploring the bottoms themselves, is to be found in the despatches received thence on Monday last, which state, that access had at last been got to a pillar, at a shallow part of the old Barranco workings, and that it contained ores of a very rich quality, some of which was brought to England by the same packet as brought the letters; and if ores so rich were left in pillars at a shallow level, it is not unreasonable to presume, that those who left them had good inducements to go deeper. An extract from the despatches is given in a postscript below.

Seeing that a great deal may be gathered from the earlier reports furnished to the shareholders, it will hardly be deemed necessary to give a lengthened repetition of statements here; a few brief extracts, therefore, must suffice, and very few, I think, should be required after what has just been stated.

In the report above referred to, Mr. Taylor remarks that,—

"As Mexico has been by far the most productive country in the world for silver, so I believe it is the opinion of those best informed upon the subject that the mines of Bolanos are the richest in Mexico. Captain Vetch has invariably expressed this opinion, and his reliance upon their being likely to produce the highest rates of profit; and he urges, that if the proprietors will place reliance on his judgment, and will exercise the patience required for such an undertaking, they will be most amply and liberally rewarded. I venture to think, that the more this opinion is examined, with all the evidence which we now possess, the more it is likely to be confirmed and strengthened, and the more it will be seen to be true, that the district contains an immense store of wealth, meriting the application of extraordinary effort to explore it."

Captain Vetch in the letters above referred to by Mr. Taylor, says—

"He considers Bolanos the most valuable mine in the country; that its returns will be the largest in proportion to the capital expended; but that these riches can only be obtained from that part of the vein which is below the level of the water."

Again,—

"In what respects the Company of Bolanos, my own candid opinion is, that valuable as the Real del Monte concerns are, the other is still more so; and I have only to trust that our efforts in that quarter may be equally well supported, and that the prospects of the Real del Monte shareholders will restore an equal degree of confidence to the others."

Also,—

"I cannot conclude this letter without assuring the shareholders, that if they can repose any confidence in my opinion, they may rest satisfied that in the mines of Bolanos they possess the best mining concern in the Republic of Mexico, and that it deserves all their confidence and support."

"The general width of the vein in the Barranco mine," Mr. Taylor says, "is stated to be from four to eight yards, and the ores of an unusual degree of richness; that is to say, those which were extracted when the mine was in full and active working. The carga of twelve arrobas is confidently said to have produced four mares, which would be at the rate of forty mares to the monton of Real del Monte. This was their general or average value; but the vein is stated, in some places, to contain branches or bands of ore, of three-quarters of a yard in width, worth sixty mares to the carga, or 600 to the monton."

"Captain Vetch remarks, that after making due allowance, he can have no difficulty in believing that this is one of the richest veins ever worked in Mexico, and that it is one that combines rich ores with great abundance of them—a case that rarely occurs in the country."

"This sentiment agrees so exactly with the opinion which the Baron de Humboldt formed of it, that I think it but right to extract a passage from one of his letters to prove the coincidence. He says, 'Bolanos a *Journal longtemps un produit annuel de 200,000 mares d'argent, le mine principale a offert des masses énormes d'argent natif. Généralement au Mexique, il y a plutôt d'abondance que richesse de minerais; a Bolanos ces deux biens se trouvent réunis, et ne pouvant tenir les eaux par des mauvais Malacates, on a délaissé et abandonné les travaux en pleins fruits.'*"

"I may here add, that these concurring views, formed at different periods, and without communication between the parties, appear to me to be fully and strongly confirmed by all subsequent inquiry and information; and I venture now to state it as a fact beyond dispute, that for richness of produce, the mines of Bolanos stand almost unrivalled."

"Captain Vetch thinks, that looking at the evidence of former produce, and considering the quantity of silver which in those times always escaped the payment of duty, and of which no register exists, and further considering that we have now possession of all the mines in the district, it is reasonable and fair to conclude that the produce would probably be again equal to that of the most flourishing era, or nearly four million dollars a year."

Innumerable other extracts might be given bearing on the extraordinary riches of this mine—but I shall make only one more, and this will be in reference to the suspension and re-working of the mine.

"I have remarked," says Mr. Taylor "that the mines in the southern part, which was the rich portion, were worked by different persons, and as they became deeper and the drainage was consequently more difficult, litigation and disputes ensued between the proprietors of the different portions, as might naturally be expected; and owing to the multiplicity of vexatious lawsuits, and the want of a proper system of drainage for the whole, the mines were abandoned in the year 1790."



"An effort was made in 1791 to renew the working of these celebrated mines, and a company was formed upon a large scale in the city of Mexico for this purpose; they undertook, however, only the mine of El Barranco, though they had possession of many others to secure them against the former evils. The abundance of water was their great difficulty, and they knew of no other means of meeting this but by the application of a great number of whims or malacates, of which they had no less than forty-four, employing 2300 mules, and nearly 400 people. The expense of drawing water in this manner, including ropes and other charges, was nearly 400,000 dollars annually, and this of itself would be ample evidence of the estimation in which these mines were held. This company, however, never succeeded perfectly in freeing the Barranco mine from water, and indeed even this enormous expensive method of drainage only enabled them to prevent the water from rising more than two levels above the bottoms of the mine; they could not therefore work the deepest part, or at any rate but very imperfectly, and the produce they obtained was chiefly from pillars or arches left in former workings.

"Sonneschmidt relates, that when he visited it, 5000 mules were employed on the mine of Barranco, to drain it by malacates, an operation which was persevered in with such ardour, that no further proof need be required of the riches which are known to exist in the mine, and which the company will have at command when it shall again be laid dry."

It is true many and serious have been the difficulties of gaining access to the bottoms of the mines, from climate, accidents, the immense labour of bringing home water for two large wheels, by cutting a lead of three miles and a half long, six feet wide, and six feet deep, having one and three quarter miles of tunnelling; the getting two steam-engines from England, and erecting the same, the sinking a new shaft from the surface to facilitate the bringing levels to the rich pillars, said to be left standing, and under the old bottoms; all which now are nearly complete, having been works of much anxiety, labour, and expense; nor was it to be expected much benefit could be derived here, more than elsewhere, until the mine was drained; which was the object from the beginning, and which will now ere long be done. Returns to some extent might have been made from the northern and southern parts, but it ought hardly to be expected, seeing that they are as yet but shallow compared with the central part, the Barranco bottoms, which are said to be richest in the deeper parts, and those are scarcely one half the depth of some of the Mexican mines. Seeing these things, it is quite evident that the objects which were the inducements to undertake the concern, and which have been the incitement now to overcome almost all the difficulties, should still be the encouragement for a little further patience and caution, to see the result and reap the advantage which may be reasonably expected, and which, doubtless, your correspondent, on a little consideration, will acknowledge was partly the inducement for his becoming a proprietor.

London, Feb. 16.

#### A SHAREHOLDER.

P. S.—In extending the Esperanza level north of San Diego, through old workings, we have met with a small pillar, which has at last proved that our predecessors had a rich mine. I have sent by the conductal some specimens of the ores to the directors. They speak for themselves, and need no explanation on my part to prove they are very rich ores; it is no small satisfaction for us to know that the reports of the riches of this mine were well founded.

No. 1, in common producing two to four marcs per carga.

No. 2, is a mixture of rich fahl ertz, called pastu and native silver.

No. 3, is very rich composed of a great deal of native silver, assays eighteen marcs per carga.

No. 4, pure fahl ertz, producing 119 marcs per carga.

Of course, these very rich ores have been scarce, even in the time of the best Bonanzas; but the native silver is by no means uncommon.

I hope that we may find the other pillars and bottoms of Barranco equal to what we have already seen, the company might then expect to pay back in a short time a great part of the capital which they have invested in these mines.

#### PROCEEDINGS OF PUBLIC COMPANIES.

##### KERROW TIN MINING COMPANY.

A special general meeting of the shareholders of this company was held at the offices, 4, Leadenhall-street, on Saturday, the 11th ult.

EDWARD GARLAND, Esq., in the chair.

The advertisement convening the meeting having been read, the CHAIRMAN stated, in accordance with the terms of the advertisement, that the meeting had been convened for the purpose of considering the propriety of dissolving the company; he regretted that the last call the directors had made (with the approbation of the shareholders), had been so ill responded to, the result of which was, that the company had not only been left unable to carry on the operations, but that it had incurred a debt to the amount of 600*l*. He proceeded to state that he had caused valuations to be made of the stock of materials belonging to the company, the result of which was, that 1775*l*. was the sum they were calculated upon to produce if sold separate, but their value as stock on the mine was considerably greater; he also stated the probable cost of working the mine, if the company were to resolve on continuing operations, which would be 800*l*. to prove the lodes, but to sink deeper and effectually to bring the mine into an efficient state of operations, would require 2000*l*.; the captains who had furnished this intelligence were Messrs. Stephens and Browne, letters from whom had been received. Mr. Browne, the late agent, had also lately informed the directors that he had received nine petitions, brought against the company by merchants in arrears of payment. The Chairman dwelt particularly on the necessity of economy; they had urged on Mr. Browne for some time past, but were sorry to have occasion to state that they did not think Mr. Browne had done his utmost to lessen the charges, although the mines had been kept only in such a state as to preserve their title to it. He concluded by seriously advising the proprietors to abandon the undertaking, not because it had turned out to be unproductive, but because their means of effectually proving the mine fell far short of the sum required, there being only 160*l*. paid upon the last call.

A SHAREHOLDER here rose, and expressed himself highly dissatisfied with what had fallen from the Chairman, it being plainly stated in the prospectus, that no machinery would be required, there being at all times a sufficient supply of water; and further, that in his opinion, Mr. Browne had not acted honourably towards the company.

Mr. WILSON asked if Mr. Browne's accounts were found to be correct, and thought that the merchant's account should not be paid till all his books had been examined.

The CHAIRMAN replied, that they had the vouchers up every month, and knew of no error in particular to which they could refer, but that they had found fault generally with the expenditure, as exceeding what, in their opinion, it ought to have been. Mr. Browne, however, had offered to show to the directors, all the books and accounts in his possession.

A SHAREHOLDER inquired if the shares on which the last instalment had not been paid were forfeited, to which the chairman replied, that they had been forfeited, but were restored by the directors, according to the powers vested in them by the regulations on the scrip.

The proprietor who made the enquiry contended that the directors, after having advertised the forfeiture of the shares, had no power to restore them, and that those shareholders had given up all right and title to any benefits arising from the shares so forfeited.

After some further conversation, it was agreed that the directors had acted with due propriety in restoring the forfeited shares, but the business of the day being more particularly concerning the dissolution of the company, Mr. Saunders rose to move that the company be dissolved, as no one had evinced a desire to move that the company should continue further operations, which motion was seconded by Mr. Strong, and carried, subject to confirmation at another special meeting, to be held for that purpose. Thanks having been voted to the directors, the meeting adjourned.

##### GREAT WESTERN RAILWAY.

A meeting of proprietors was held at the City of London Tavern, on Thursday, the 16th February, 1837.

ROBERT BRIGHT, Esq., in the chair.

The CHAIRMAN, in opening the business of the day, experienced his regret that Mr. Shaw, their late chairman, was unable to attend from indisposition.

The report submitted to the meeting, stated, that the works were all progressing very favourably, and were expected to proceed more rapidly.

tarded them. The line from London to Maidenhead would be completed by October next; the excavations going on between Maidenhead and Acton, had been delayed from the excessive wet; the line also between Reading and Bath, and Bath and Bristol, was in a favourable state; it also mentions the readiness and activity of the contractors, in proceeding with their work, and further stated, that this line was one hundred miles in extent without a tunnel, and adverted to the several improvements that this line would be able to embrace, which the different railway companies had lately adopted. It was, the report continued, confidently expected, that these improvements as well as the various branches which will bring remunerative supplies, will not swell the expenditure to an amount above that calculated upon, but on the contrary, that the various improvements together with the curves which it had been found could be avoided, would produce a saving of 30,000*l*.; but, nevertheless, the whole estimate might fall short by a trifling amount. The accounts submitted to the proprietors showed a balance of 280,802*l*. 2s. 2d.

The engineer's report, regarding the different operations, was then read.

Mr. OUTRAM then moved that the directors report should be received and adopted, at the same time, conveying a vote of thanks to the directors for the explicit and clear manner in which it was drawn up, which was seconded by Mr. Valpy, and carried unanimously.

Mr. OUTRAM, then expressed a wish to know whether the directors would make any remuneration to some poor cottagers near Paddington, in case the line passed over their property, as was expected; to which

The CHAIRMAN replied, that ample remuneration would be made, where such was deemed proper.

It was then moved by Mr. R. Scott, and seconded by Mr. Hardy, that the corporate seal of the company be affixed to the resolution for receiving and adopting the report, which was carried unanimously.

It was then moved by Mr. Crawly, and seconded by Mr. Ball, that the best thanks of the meeting be given to the directors for the zeal and interest they had manifested in the affairs of the company.

Mr. PARSONS then moved, seconded by Mr. Outram, that the directors who had just retired from office be re-elected, which was carried unanimously.

The CHAIRMAN remarked, that the business of the day being now over, he had to acquaint the shareholders, that, in the course of a short time, a special general meeting would be convened, to lay before the shareholders a copy of the extension line, when the standing order of the House of Lords was read.

It was then moved by Mr. R. Scott, and seconded by Mr. Amber, that the draft of this bill be approved and accepted, and also, that the directors be empowered to proceed in Parliament, for the passing of the amended act.

After which, a vote of thanks to Mr. Saunders, the secretary, for the great and persevering activity he had continually manifested in every thing relating to the company's affairs, was moved and seconded, but was afterwards withdrawn at this gentleman's request, he stating, that he thought it might be considered invidious to other officers of the company, at the same time thanking the meeting for the honour they had proposed to confer on him.

After some general conversation, the meeting adjourned.

#### AUSTRALIAN AGRICULTURAL SOCIETY.

On Monday, the annual meeting of the proprietors of shares in this undertaking was held at the Company's House, King's Arms-yard, Coleman-street, for the purpose of receiving a report from the directors relative to the state of the company's affairs, and to proceed to the election of three directors and four auditors, whose offices have become vacant pursuant to the terms of the charter.

JOHN SMITH, Esq., M.P., the governor, in the chair.

Mr. ESWORTH, the secretary, read the report of the directors. It stated that the despatches from the company's commissioner in Australia, Lieutenant-Colonel Dumaresq, were of the most favourable description. The new locations of the company's lands in the Liverpool plains and Peel's river had more than realised the favourable impressions entertained of them. The new districts, which had been recently visited by Colonel Dumaresq, abounded with grass and luxuriant vegetation. The crops had an unusually forward appearance. The total quantity of land under cultivation in December, 1835, was 588 acres. The improvements of the lands had been retarded by the scarcity of convict labour; but this difficulty the directors had no doubt was now removed by an assignment to the company of an additional number of convicts, in accordance with instructions transmitted by Lord Glenelg to the governor of New South Wales. The report of Colonel Dumaresq, as to the condition of the company's live stock, was favourable. The total number of sheep, on Dec. 31, 1835, was 55,695; the lambing of that year having produced 15,671 lambs. Of horses and ponies there were on the company's lands, on the 31st of December, 1835, 422, and of cattle, 2,924. The annual sale of the company's surplus stock of sheep and horses last year had produced 4,501*l*. 5s. 6d., and additional sales of horses were expected to be made during last year, for the use of the cavalry and artillery of the Madras army. At the coal mines the works were proceeding satisfactorily, and the company would be enabled to supply the increased demand arising from the extension of steam navigation. The sales to Government and the public had in 1832 been 7,143 tons; in 1833, 6,812 tons; in 1834, 8,491 tons; and in 1835, 12,392 tons. The remainder of the clip of wool from the company's flocks in 1834 had been sold, and realised 4,109*l*. 7s. 8d. In the past year 363 bales, part of the clip of 1835, had been received, and sold by public auction, producing 9,680*l*. 12s. 10d. net. The wools surpassed all previous importations from the company's flocks, and produced an average of 2s. 7d. per lb. The remainder of the clip (70 bales) had not yet been sold. The amount realised for hides and horn tips had been 198*l*. 1s. 1d. By the statements of the receipts and expenditure the proprietors would observe, that a balance was due to the banker, on the 31st of December last, of 4,345*l*., arising from the circumstance of the declaration of a dividend, before the proceeds of the wool were realised; the whole expenses of the company being also previously deducted. To prevent this circumstance in future, the directors had resolved to make a call of 20s. per share, and not to interfere with the regular payment of the dividend. The directors wished it to be understood that the money to be called for would not be hereafter applied to increase the dividend. In conclusion the report stated, that the affairs of the company were improving substantially. From the estimates of the value of the company's land and coal mines, it appeared that a gradual increase had taken place. In 1833 their value was estimated at 108,013*l*.; in 1834, it was 131,617*l*. 11s. 7d.; and in 1835 it had increased to 151,121*l*. 14s. 3d.

The GOVERNOR, in reply to some remarks from a proprietor, said, after some discussion among the directors, it had been resolved to make a call in preference to postponing the payment of a dividend.

Mr. MAULEVEVER (hitherto known as Captain Gowen) thought it would be advisable to delay the dividend for the next year, or even for two years, rather than make a fresh call. He felt confident that the establishment would not succeed as an agricultural body only, and that the directors ought to have carried into full effect the original plan of promoting emigration. If one half of the 300,000*l*. that had been squandered away in the colony had been employed in promoting emigration, and of forming roads and bridges in the colony, better results would have followed. He held the opinion that as an agricultural company it could not succeed, and the discovery of the coal mines had alone saved it. The directors ought to turn their attention to the encouragement of emigration to the colony.

The GOVERNOR said the hon. proprietor could not be aware of the expenses which must have been incurred by forwarding emigrants to the colony, and of the cost of labour there. If such a course had been adopted, the calls upon the proprietors would have been ten times as great as they had been. The company was, however, progressing prosperously, and was of national importance, as it had extended the language and religion of this country to that distant region.

The report was then adopted, and the call of 1*l*. per share agreed to.

Mr. Loch, Mr. Davison, and Mr. Ravenshaw were re-elected as directors, as well as the four auditors, and after thanks had been given

#### PRODUCE OF COPPER MINES IN CORNWALL FOR TWELVE MONTHS, ENDING DECEMBER 31, 1836.

(From No. IX. of the "Mining Review," just published.)

MINES.	Tons.	Produce.	Av. p. ton.
		£ s. d.	£ s. d.
Consolidated . . . . .	13437	109924 0 6	8 3 7
Fowey Consols . . . . .	12855	86287 10 0	6 17 5
Treavean . . . . .	11466	86010 19 0	7 10 1
Carn Brea . . . . .	6275	52944 7 0	8 8 0
East W. Crofty . . . . .	7541	32320 18 0	4 3 8
Wheal Jewel . . . . .	4464	45079 17 6	10 1 11
Levant . . . . .	2377	36815 4 6	15 9 9
Gr. St. George . . . . .	5980	30015 16 6	5 0 4
North Roskear . . . . .	3671	24774 17 6	6 14 0
United Hills . . . . .	3742	23410 9 6	6 5 1
W. Unity Wood . . . . .	3234	20291 12 0	6 5 5
Dolcoath . . . . .	3369	20089 4 6	5 19 3
Binner Downs . . . . .	3369	19375 7 0	5 17 11
United . . . . .	1991	18736 12 0	9 8 2
Wheal Tolgus . . . . .	2314	18329 8 0	7 18 5
East Cinnis . . . . .	1699	16172 7 0	9 10 4
Marazion Mines . . . . .	1746	15006 5 0	8 12 0
Sou. W. Bassett . . . . .	1863	14022 14 6	7 11 6
South Roskear . . . . .	2177	12877 3 0	5 18 2
St. W. Fortune . . . . .	1363	11790 1 6	8 13 0
Wheal Virgin . . . . .	1818	11769 12 0	6 9 5
Wh. Trevaas . . . . .	1239	11624 8 6	6 6 5
Relistian . . . . .	1242	11319 16 0	9 2 3
Wheal Ellen . . . . .	1797	10731 18 6	5 19 5
East Pool . . . . .	1156	10377 13 6	8 19 6
W. Providence . . . . .	1608	9536 5 0	5 18 7
Wheal Trenwith . . . . .	734	8990 5 6	12 4 11
Consols Mine . . . . .	1196	8348 17 6	6 19 7
Pembroke . . . . .	643	7582 6 6	11 17 4
Stray Park . . . . .	901	7081 7 6	7 17 2
W. Darlington . . . . .	897	6005 3 6	6 13 10
Carharrack . . . . .	991	5698 13 6	5 16 0
G. W. Charlotte . . . . .	1201	5628 14 6	4 13 8
Wheal Gorland . . . . .	547	4665 14 6	8 10 7
Wheal Leisure . . . . .	1196	4344 17 6	3 12 7
Pollice . . . . .	654	3999 17 0	6 2 3
Cooks Kitchen . . . . .	1065	3970 5 6	3 14 6
Cardew Consols . . . . .	839	3843 0 6	6 11 7
Hallen Beagle . . . . .	588	3668 10 0	6 4 9
Wheal Vyvyan . . . . .	604	3538 7 6	6 17 0
West Tolgus . . . . .	505	3418 0 0	6 15 4
Wheal Buller . . . . .	595	3225 6 0	5 8 4
Tin Croft . . . . .	716	3189 13 6	4 9 1
North Consols . . . . .	753	2677 4 6	3 11 1
Wheal Busy . . . . .	787	2672 0 6	3 7 10
Copperbottom . . . . .	348	2642 8 6	7 11 1
Wh. Montague . . . . .	367	2526 17 6	6 17 8
Polgine . . . . .	321	2482 10 0	7 14 0
Providence Min. . . . .	178	2424 6 6	13 12 5
Herland . . . . .	419	2309 5 0	5 1 2
Wheal Bolton . . . . .	271	2206 2 0	8 18 3
E. Wh. Strawn . . . . .	302	1875 4 6	6 4 2
Wheal Damsel . . . . .	283	1741 15 6	6 3 1
Wheal Julia . . . . .	402	1696 15 6	4 4 5
Wheal Liberty . . . . .	476	1671 5 0	3 10 2
Lanescott . . . . .	265	1526 0 0	5 15 2
North Downs . . . . .	155	1350 5 0	8 14 2
South Towan . . . . .	181	1156 2 6	6 7 8
Great Work . . . . .	101	1094 15 6	10 16 9
Redruth United . . . . .	164	1076 11 0	6 11 2
Wheal Tiddy . . . . .	132	1022 16 0	7 14 11
Wheal Kitty . . . . .	84	998 18 0	11 17 1
Wh. Edward . . . . .	55	814 12 6	14 15 6
Wheal Mary . . . . .	155	758 3 0	4 17 9
Charlestown U. . . . .	49	709 2 0	14 15 5
Wh. Providence . . . . .	144	618 1 0	4 4 5
Harvey's Ore . . . . .	300	593 10 0	1 19 10
Wheal Clifton . . . . .	122	589 6 0	4 16 7
Barley's Ore . . . . .	306	577 5 0	1 18 5
Spear Moor . . . . .	20	549 5 0	27 9 3
Wheal Sparrow . . . . .	84	479 1 0	5 14 0
Wheal Harriett . . . . .	170	475 17 6	2 15 11
Cartnew's Ore . . . . .	113	421 8 0	3 14 6
Wheal Vor . . . . .	58	387 3 0	6 13 6
Hallamasing . . . . .	55	329 6 6	5 19 9
Penstruthal . . . . .	60	321 13 6	5 7 2
Redruth Cons. . . . .	26	196 10 0	7 11 6
Ting Tang . . . . .	42	167 13 6	3 19 10
Wheal Reen . . . . .	48	152 8 0	3 3 6
Wheal Cock . . . . .	10	146 0 0	14 12 0
Batten's Ore . . . . .	42	137 2 0	3 5 3
Ivey's Ore . . . . .	46	120 10 6	2 12 4
Polbrean . . . . .	20	120 10 0	6 0 6
Wheal Towan . . . . .	27	114 4 0	4 4 7
Polberou Cons. . . . .	10	108 10 0	10 17 0
Rose in Vale . . . . .	28	105 0 0	3 15 0
Wheal Agar . . . . .	20	95 10 0	4 13 6
Coad's Ore . . . . .	40	94 10 0	2 7 3
Wheal Perran . . . . .	19	88 7 0	4 8 0
Nantarrow . . . . .	27	85 14 6	3 3 0
Wheal Leeds . . . . .	15	67 17 6	4 10 6
Teague's Ore . . . . .	27	67 1 0	2 9 8
Wheal Maullin . . . . .	20	57 0 0	2 17 0
Wheal Treasure . . . . .	9	55 2 0	5 2 5
Ballaswidden . . . . .	4	53 3 6	13 5 10
Anna Frances . . . . .	20	46 10 0	1 6 6
East Providence . . . . .	10	26 10 0	2 13 0
Skewe's Ore . . . . .	10	18 15 0	1 17 6
Treleigh Consols . . . . .	21	0 0 0	0 0 0

TOTAL, 135,603 Tons; £976,655 12s.; AVERAGE PRODUCE, £7. 4s. 6d.

RIVER WEAR VEND OF COALS.—The following statement extracted from the 30th day of June to, and with, the 31st day of December, 1836, and was sworn to by the staitmen of the coal-owners under-mentioned before the commissioners of the river Wear, on the 18th of January, 1837. The first column exhibits the quantity supplied to glass-houses, limekilns, &c., exempt from duty; and the second column shipped for chargeable with duty:—

Trustees of the Marquess of Londonderry, from Pensher Colliery	1803	10,500
Ditto, ditto, led to Wearmouth		25,000
The Earl of Durham	2188	66,500
The Hetton Coal Company	2751	65,300
Russell and Co. (Washington Colliery)	1336	33,000
Ditto, ditto (North Hetton Colliery)	71	33,000
Trustees of the Marquis of Londonderry, the Earl of Durham, and the Hetton Coal Company (North Hetton Colliery)	288	73,000
M. J. Davison, Esq. (Beamish Colliery)	320	10,000
Stobart and Co. (Fattfield Colliery)	3579	10,000
Bell and Co. (Shield Row Colliery)		7,000
Pemberton and Co. (Monkwearmouth Colliery)	128	6,000
Clark and Co. (Haswell Colliery)		13,500
Bell and Co. (Belmont Colliery)		27,000
Braddyl and Co. (South Hetton Colliery)		27,000

Total . . . . . 12,584 238,500  
Shipped and chargeable with duty, the first half-year, ending 30th June, 1836 . . . . . 197,500  
Didto, ditto, the second ditto, ending Dec. 31, ditto, as above . . . . . 238,500

Total for the year . . . . . 466,000



## PROCEEDINGS OF SCIENTIFIC MEETINGS.

## GEOLOGICAL SOCIETY.

The anniversary meeting of this society was held yesterday, when the report of the proceedings for the past year, with the accounts of the society, and a statement of the scientific contributions, and notice of the present condition of the library, &c., were submitted. The balloting for the council and officers of the society, including the election of the Rev. W. Whewell, as president for the ensuing year, then took place.

Mr. C. LYELL, as president for the past year, proceeded to read the annual address, which comprised a statement of the proceedings of the society, embracing a review of the present state of geological knowledge. The meeting adjourned, the remainder of the address of the president being deferred until the evening meeting at the rooms of the society. The anniversary dinner was held in the interval at the Crown and Anchor Tavern, Strand; when the Rev. W. Whewell, of Cambridge, as president of the society for the ensuing year, presided. Nearly one hundred gentlemen were present, amongst whom we noticed Baron Parke, Lords Boringdon and Gore, Sir Charles Lemon, Sir T. F. Donkin, Dr. Buckland, Messrs. Lyell, Greenough, Murchison, De la Beche, Taylor, Stokes, and other members of the society.

After the removal of the cloth, the chairman proposed "the King," "the Queen," and "rest of the royal family," toasts which were loyally responded to.

In proposing the next toast, that of "the Geological Society," the chairman entered fully into the advantages arising from the prosecution of the study of geology, and the rapid advances that science has made within the past few years, the importance of the discoveries of late, and the comparative infancy at which geological knowledge had arrived some few years back, when its present advanced and progressive state was considered. This was happily alluded to by the chairman, whose address was received with much applause.

In proposing the health of Mr. C. Lyell, the late president, the chairman dwelt on the services rendered to science by that gentleman, and the new era which might be considered to have presented itself from the principles laid down by him, and which were being pursued and carried out in a manner calculated to reflect the highest credit on him, and to render his name in future ages, of equal distinction to those which have preceded him in astronomical and other sciences, to which attention in earlier ages was more particularly directed.

Mr. LYELL briefly returned thanks, and in acknowledging the compliment paid him, referred to the communication of several parties, who, from their observations abroad, had fully confirmed the correctness of the principles he had endeavoured to establish.

Mr. MURCHISON, in rising to propose the health of the newly elected president, entered fully into the connexion between geology and other sciences with which that gentleman was so well acquainted. He observed, that the society might feel honoured by the appointment of one who ranked so high in literature and science, and whose equal he was unable to name. He contended that the sciences were so blended that he could not but consider the president whom they had elected, as a peculiarly judicious choice; and knowing as he did, that much had been rendered to the advancement of geological knowledge by that gentleman, there could be but one feeling with the members of the society.

The PRESIDENT, in an eloquent address, acknowledged the honour conferred.

The following toasts of the University of Oxford and Cambridge, the former acknowledged by Dr. Buckland, and the latter proposed by Sir C. Lemon—in the course of the observations of whom, much stress was laid on the importance to be attached to them as upholding sciences, though they were careful in adopting new theories—were then drunk.

The success of the Royal Society, the Linnean, with those of the Zoological and Geographical, followed, which were appropriately introduced and acknowledged.

Several other toasts succeeded, including the health of Mr. de la Beche, foreign secretary, the English secretaries, the treasurer, curator, and others.

Mr. DE LA BECHE, in returning thanks, adverted to the services rendered to science in the Ordnance Geological Survey, on which he was employed by Sir Charles Lemon, and the parties interested in the state of Cornwall; he remarked on the difficulties attendant surveys of a nature in a mining county like that of Cornwall, while he was glad to acknowledge the facilities afforded him in his pursuits.

Mr. TAYLOR, as the treasurer, briefly returned thanks, observing, that he was pleased to be able to state that the gloom which had of late, pervaded the money market, had not spread its baneful influence over the affairs of the society, the accounts of which were of a satisfactory kind, and which afforded the best evidence of its utility, and the manner in which its labours were appreciated.

Mr. HUTTON, on the part of the English secretaries of the society, returned thanks; and after some other toasts and the usual routine of business of this description, the society adjourned to Somerset House, where the address of Mr. Lyell was renewed, and the meeting separated highly delighted with an intellectual treat, which can only be enjoyed in the study of this nature, where, as was justly observed by the president and others, truth alone is the object of pursuit, where prejudice and narrow-minded men are never found to prevail, but where liberality of feeling distinguishes its course and whose labours are devoted to the development and promulgation of knowledge on subjects which interest all, and are closely allied with the other sciences.

We hope on an early occasion to give the address of the president.

**BUCKLAND ON GEOLOGY AND MINERALOGY CONSIDERED WITH REFERENCE TO NATURAL THEOLOGY.**—The greater portion of this essay is occupied with a discussion to which no allusion has, as yet, been made. The laboured work of Archdeacon Paley was devoted to a development of the numerous evidences of design exhibited in the mechanical structure of the animal frame of man, as well as of the inferior animals; and our author, pursuing the same method of investigation, has instituted similar inquiries in reference to the organised beings of past eras, and which exist only in the fossil state. In this very seductive theme our limits prevent us from following him; and this we the more regret, as this portion of his work is, beyond a question, that which he has executed with greatest ability and care. Dr. Buckland's ardour in the study, and his zest in the exposition of the anatomical structure, habits, and relations of extinct animals, appear to border on enthusiasm. When engaged with such subjects, his tone and style acquire an unusual vivacity and elevation. Under the influence of the brilliancy of his imagery, and force of his descriptions, the reader is, as it were, unwittingly carried to those remote periods, when the face of nature, and the various animals and plants which flourished on the surface of our planet, were totally different from the present:—the Dinotherium, a lacustrine, herbivorous quadruped, eighteen feet in length, and of proportional height, lived before him; the Megatherium, or fossil sloth, whose gigantic size he inferred from its wielding a tail six feet in circumference, he believed, invested like the rhinoceros with a coat of mail, and extracting, from a single delve of its enormous talons, the roots of the largest trees; he then crunched with the same ease as swine do acorns; the mammoth, or monster bat, flits through the air; saurian reptiles, of colossal dimensions, skulk through the prairies in search of prey, or creep along the waters; while colossal Leiodontes, Sigillaries, and others, together with Equisetaceae, and ferns, of a size far surpassing the grove forest trees, in imagination wave on every side.—*Athenaeum*.

**STATE OF ENGLAND.—QUARTERLY AVERAGE OF THE WEEKLY LIABILITIES AND ASSETS, FROM NOV. 15 TO FEB. 7, INCLUSIVE:—**

LIABILITIES.		ASSETS.	
Capital.....	£17,868,000	Securities.....	£31,085,000
Reserve.....	14,230,000	Bullion.....	4,032,000
	£32,098,000		£35,117,000

**SAVES ON RAILWAYS.**—We learn by a contemporary that a valuable discovery has been made by Mr. Rooke, a dancing master, that will remove the danger arising from the misplacing of points on "switches" on railways. By Mr. Rooke's invention, the engine is made to arrange switches for itself, in whatever direction it is intended to move. The safety of the apparatus is trifling, and applicable to all kind of railways. It is said that a late accident on the Newcastle and Carlisle Railway suggested the idea.

## IRISH MINING OPERATIONS.

[Continued from No. 75.]

SIR.—The occurrence of flucans, heaves, and other irregularities, being very similar in the lodes of Ireland to those of other countries, it is not necessary to describe them, and a little consideration of most of the names given by miners, to the various changes a lode is subject to, with a little local information, will easily convey to the mind of the shareholder the nature and effects of such circumstances. We seem also in Ireland to be quite familiar with most of the Cornish terms, such as "mundic rides a good horse," "a horse in the lode," &c., an explanation of which may be interesting to parties holding shares, but never visiting mines. Lodes which have been rich or plentiful in mundic on the "back," or surface, have generally proved good and lasting mines in depth, thereby pointing out the origin of the former term. "A horse in the lode" is the occurrence of a mass of ground of uncertain dimensions as to extent, sometimes occupying the whole "gunnies" or width of the lode between walls; at other times being separated from the walls by ribs of ore, and sometimes splitting up, and dividing into shings, or otherwise mixing with the ore portion of the lode; a "horse" nearly always occasions the miner an increase of labour, as he has an additional quantity of dead ground to cut away, while it lasts. All these circumstances were in former years very puzzling to Irish miners, but their difficulties are nearly all overcome by the mode of work now pursued, and the accurate knowledge of dialling possessed by most mine agents, enabling them in many cases to recover the lode at different points, and thereby avoid the expense of stopping away such bodies of unproductive ground. The system of working lodes in backs, and the regular extension of levels at every ten fathoms, wherever practicable, is effecting considerable saving in the drawing expenses of Irish mines, as well as adding to their security by the facilities afforded for "stalling the deads" and the formation of middlings, or pillars, for the support of the walls.

The Irish mines, and lodes, as yet partially worked, appear to possess one great advantage in their capability of being drained to a great depth by adit levels, owing to being chiefly situated in high or mountainous countries, and their water under adit is in general small in quantity, which probably is owing to most of the mines (principally copper) being in what miners call, a "close country." The Ballymurtagh mine, which is now 122 fathoms deep, eighty fathoms of which is under adit, makes but 570 hogheads each twenty-four hours; there are, however, several instances of lodes occurring in very open, or jointly strata, which, if worked under adit, would become expensive to unwater. In the mine just alluded to the water is kept out by a thirty inch cylinder steam engine, working two plungers, and two draught lifts of six inch pumps; the advantage in point of effectiveness, and saving of leather and other expensive materials in using the plunger, has been fully experienced there. The water in several of our mines being strongly impregnated with copper in solution, is very destructive to the pump or pit-work, and in some instances is so very strong, that unless the pipes are lined with wood, and all the working parts made of brass, the pit-work would be destroyed in a few months. Precipitate copper has been made in former years in these mines on a small scale, but from the small supply of water, and its being now required for engine purposes, the process has been given up; indeed, the produce of late years in this country, after deducting the expenses of labour, and purchase of old scrap iron, or metal, &c., has not been found remunerative.

Considerable attention has of late been devoted by parties working Irish mines, in returning, as near as possible, all the ore from the "burrows," or "halvans," where the waste is of a light and sparry nature, and tolerably free from mundic, iron, &c.; extensive stamping apparatus are in operation for the purpose of reducing them to a sufficient fineness to be put through jiggling machines, very well contrived for the purpose of separating the ore from the waste. In mines of a decidedly sulphury or pyritous character, stamps are not applied, but the "halvans" are carefully gone through with the hand hammer, the solid part of the ore being ground by the crushing mill, and the only jiggling or washing necessary on such ore, being that used in dressing the "dredge" or fine "smalls."

Great differences of opinion have prevailed in the Irish mines among the agents, as to the best mode of washing ores, whether by the common round hand-sieve and hutch, the breakfast sieve, or the jiggling machine; from the result of experiments I have seen made, I find a larger quantity can be washed, and at a cheaper rate, by the latter; but by the round hand-sieve, the ore can be dressed much cleaner, and it appears the most advisable machine in mines which are not pressed with much sieve work, as the improvement in produce compensates for the difference of cost; however, the adoption of either must always be very much ruled by the nature of the ores they have to operate upon. The boys—"cobblers"—are very expert in cobbling the ores, and have obtained a perfect knowledge of the method of separating, and throwing aside such parts of the ores as are unfit to "put to pile," and the constant use of the hammer in "cobbling and lack-spelling" seems well adapted to prepare them for the more laborious labour of boring underground when they become miners. E. B.

## RUSSIAN RAILROADS.

On the 14th, 15th, and 16th, all the three locomotives started, and made four journeys from Pawlowsk to Kusmino and back, fourteen warts, with a train of fifteen carriages and waggons attached to each. The cold in the morning was ten degrees, and during the last trip in the evening it had reached eighteen degrees Reaumur. In the course of the journey, the tire of one of the wheels of Cockerill's locomotive snapped; but this engine, like the others, running upon six wheels, no further inconvenience arose than that of detaining the train about a quarter of an hour, until another engine could come up, which took it on to Pawlowsk—none of the passengers, who were 120 in number, evincing the least alarm at the occurrence.

Sunday, the 15th, was a grand day. The train consisted of twenty-five carriages, chiefly filled with passengers. Two luries, carrying timber forty-two feet in length, had been fitted up for a band of musicians; another carried three horses; a fourth, a flock of sheep; and a fifth, other cattle, all on their proper stalls. Eight waggons and platforms carried sledges, drochkes, travelling chaises, coaches, and gigs.

The throng of passengers, and the loading of the waggons at the station at Zarskoe Selo, caused some delay at first starting, which was further increased by a strong side wind, blowing and offering so considerable a resistance to the train, 600 feet in length, as to constrain the locomotives to travel but at a slow rate. In the meantime the concourse of people at Pawlowsk, expecting the train had much increased, amounting to several thousands, to gratify whom in obtaining seats, the cattle luries were obliged to be left behind. The number of the public present from Petersburg may be estimated by the sledges which arrived at Zarskoe Selo, being upwards of one thousand. Five trips were made on this day to Zarskoe Selo and back; and such was the scramble for seats, that 115 persons, among whom were ladies and gentlemen of distinction, secured places on the timber waggons.

Although it was difficult to keep order with such a crowd on the line, we are happy to state, not a single accident occurred. The Petersburg public returned with the full conviction that the road would insure a very lively traffic when finished.

On Monday, Jan. 16, notwithstanding a violent snow storm, upwards of one hundred sledges, with passengers, had arrived at Pawlowsk and Zarskoe Selo. The storm had swept the snow clean off the embankment all the way between Zarskoe Selo and Pawlowsk, and six trips were made on that day.

Thus it has been proved in Russia, that railways, when judiciously constructed, may be travelled on in all weathers, and at all seasons. Not one person has hitherto been injured, nor has a rail been purloined; and the solidity of the work is so far established, that since the beginning of October, when it was partially opened, no more than the usual settlement in all earthworks has taken place; and not only were the townships of Zarskoe Selo and Pawlowsk convinced of the great advantages, but also the shareholders present expressed their sanguine expectations of traffic on the line when completed in the spring.—*St. Petersburg Zeitung*, Jan. 21.

**FRENCH ACADEMY OF SCIENCES.**—M. Becquerel is elected vice-president of the French Academy of Sciences for 1837, by a large majority of votes; and M. Magendie, the last vice-president, passes on to the presidency. The Minister of the Interior has commanded a bust of the late celebrated botanist, M. de Jussieu, to be executed for the Academy by the skilful hands of M. David.

## CARN BREA.

[Continued from No. 45.]

Our ancestors, no doubt, gave the Grecian navigator a faithful description of the novelty which had so attracted his attention; but so imperfectly were they understood that the notes from the philosopher's log would astonish a modern marine, to say nothing of the sailor. He there set it down as matter of fact, that he had discovered a place where there was neither land, nor sea, nor air, but a something composed of all three together—from which they were generated, and which was the lungs and bond of the universe, perceptibly to view, but not to be reached either by land or water. On reaching his native land, he published a narration of his wonderful and perilous voyage, in which this notable discovery was promulgated to the world; and from this statement the Grecian philosophers had to divine the properties of those fogs which then, as now, so frequently enveloped the summit of Carn Brea.

We now turn our attention to that part of the mining history of Carn Brea which stands connected with the Romans; and in the first place it may be well to tender a few brief observations respecting the manner in which that celebrated hill was discovered by that celebrated people. It has been already noticed, that in the revolution of worldly affairs the Roman empire had now risen to such a state of maturity as to have become the successful rival of the more ancient empires of the world, both in arts and arms; and that having turned their attention to maritime affairs, they were not insensible of the advantages to be derived from commerce. They envied the Greeks and Phoenicians the wealth which they severally acquired by the Cornish tin trade, and panted to become acquainted with its source, in order that they might become participators therein, or probably to apprehend the exclusive possession of its inestimable advantages. Entertaining these views they equipped an expedition, entrusting it to the command of their ablest navigators, whom they sent forth to traverse unknown and trackless oceans in quest of the land of tin. One of the barques composing this expedition was ordered to observe the port of Gades, now Gadiz, then the Phoenician rendezvous, and if possible to follow, at such a distance as to elude suspicion, any vessel which appeared to be connected with the tin trade, and to be destined to the port from which it was derived. It was not long ere the Roman commander perceived an object which he conceived to be worthy of his utmost attention. This was a Phœnician barque boldly stretching away into the Atlantic ocean, and apparently destined to some foreign land. True to his instructions, the Roman captain followed her at such a distance as to lull suspicion; but the wary Phœnician was awake to his intention, and at once resolved on a consummate revenge, even though he himself might perish in the attempt. Big with his patriotic purpose he instantly steered for a dangerous coast, and boldly ran his vessel on the shoals. The Roman still followed and soon found himself similarly situated, and all his exertions to extricate himself from the snare proved abortive. Here both vessels became perfect wrecks. The intrepid Phœnician, however, after infinite toil, privation, and peril, succeeded in rescuing his devoted crew from the devouring ocean; he reached the shore, and by a long and tedious route reached his native country, recounted his perilous adventure, and obtained from the public purse the well-earned meed of his devoted patriotism. On becoming acquainted with the disaster of their countrymen, the Romans, though disappointed, did not despair. Wisely judging that the prize must needs be great for which such great sacrifices were made, they put forth renewed energies of its discovery, and determined to persevere until their efforts should prove successful. Fresh expeditions were equipped and despatched in every probable direction, but for a long while without success. At length the intrepid Publius, weary of examining the different coasts, and despairing of success in the directions marked out for him, pushed his gallant barque into the bosom of the Atlantic, and was at length gratified by beholding the high object of his research rising majestically out of its mighty waters. He coasted along the shore, surveyed Carn Brea, carried his vessel into the *Ictis* of the ancients, and sought and found repose from his toil and peril on the soil of Cornwall. Such were the circumstances, such the disaster, and such the success attendant on Roman enterprise in the discovery of Carn Brea.

(To be continued.)

**LONDON AND BIRMINGHAM RAILWAY STATION.**—Messrs. Grisell and Peto, of London, the eminent builders, passed through Chesterfield on Wednesday morning last, on their way to Mr. Rutherford's stone-quarries at Darley Dale. Messrs. Grisell and Peto have contracted to build the railway station buildings of the London and Birmingham railway Company, according to a design by—Hardwick, Esq., architect of the Goldsmiths' Company's Hall; and these gentlemen have entered into a contract with Mr. Rutherford, of Wingerworth, near Chesterfield, to supply stone for the erection of the buildings, which are to be on a most extensive scale. The stone will be selected from the Stonecliffe quarry, in Darley Dale, near Matlock—a most beautiful and imperishable material, selected by Mr. Barry, the celebrated architect of the Birmingham Free Grammar School, which is now completed, and is a fair specimen of the material. The principal building will have four entire stone fronts—two of the fronts to have extensive porticos of columns and pilasters, about fifty feet in height, and five feet four inches in diameter. The building to be about eighty feet square, and from sixty to seventy feet high. The interior of the building will consist of stone from Bolehill, Wingerworth; and six lines of railways will branch off from the front of this extensive erection. The booking offices (which will be detached from the principal building) will be about 300 feet in length, with a colonnade the whole length of the building. There will likewise be another detached building of considerable size, erected for luggage offices. The station is expected to be completed in about nine or ten months. We understand Messrs. Grisell and Peto are constructing a wagon capable of carrying upwards of twenty-five tons, for the purpose of conveying the immense columns of stone from the quarry to Cromford wharf.

**DUDLEY AND WEST BROMWICH BANKING COMPANY.**—At the annual meeting of the Dudley and West Bromwich Banking Company, held on Tuesday, at the new banking-house, recently erected for the company, Thomas Badger, Esq., in the chair, the report of the directors for the past year, which was highly satisfactory, stated that the clear profit during that period, after deducting all bad debts, and an apportioned part of the expenses of fittings, &c., amounted to the sum of 4,987l., being 15½ per cent. on the up-paid capital. A dividend at the rate of six per cent. was then declared, leaving a balance of 3,047l. to be added to the guarantee fund, which now exceeds 7,000l. In the course of the proceedings a resolution was passed enlarging the maximum number of shares of 200, subject, however, to the approval of the general meeting to be held on the 7th of March.

**RAILROADS IN EGYPT.**—His Highness Mehemed Ali has just ordered the commencement of a railroad for the transport of stone at Tourab, a place six miles to the south-east of Cairo. This railroad will be upwards of five miles in length, running from the Mokattam mountains to the Nile. The Suez railroad has not yet been commenced. If England wish to see the railroad across the Desert from Suez to Cairo, it ought, if not urged, at least to be put forth frequently in conversation with his Highness by his Majesty's representative here. The Pasha of Egypt places greater value on the good opinion of England than all the world besides, in despite of whatever may be written or said to the contrary.

**VEGETABLE SUBSTANCE IN ARSENIC.**—It has been generally supposed that arsenic was so strong a poison, that it would entirely destroy organic life. M. Gilgen Krantz, however, chief surgeon to the third regiment of Engineers, in France, who has been very successful in his studies concerning aquatic cryptogamia, has discovered a vegetable substance of the genus Leptomitum, or Hygrocrocis, in a solution of arsenic. M. Dutrochet also observed one of the same genus in a phial of Goulard water. In both cases the plants floated in the liquid.—*Athenaeum*.

An account of the aggregate amount of Notes circulated in England and Wales, by Private Banks and by Joint-stock Banks and their Branches, distinguishing Private from Joint-stock Banks, between the 24th September and the 31st December, 1836.—From Returns directed by 3 & 4 W. IV., c. 83.

Private Banks..... £7,753,500

Joint-stock Banks..... 4,258,197

£12,011,697

Stamps and Taxes, Feb. 7, 1837.

JOHN WOODS

**ACOUSTICS.**—MM. Cagniard Latour and Demonferrand have invented an instrument which they purpose naming the Acoustic Pyrometer, and which will emit sounds according to the temperature in which it may be placed.—*Athenaeum*.



MEETINGS OF SCIENTIFIC BODIES  
IN THE ENSUING WEEK.

SOCIETY.	PLACE OF MEETING.	DAY.	HOUR.
Royal Asiatic	14, Grafton-street	Saturday	2 P.M.
Statistical	4, St. Martin's-place	Monday	8 P.M.
Linnean	Soho-square	Tuesday	8 P.M.
Horticultural	21, Regent-street	Tuesday	2 P.M.
Civil Engineers	1, Cannon-row	Tuesday	8 P.M.
Society of Arts	Adelphi	Wednesday	8 P.M.
Geological	28, Leicester-square	Thursday	8 P.M.
R.I. Society of Literature	St. Martin's-place	Thursday	4 P.M.
Royal	Somerset House	Thursday	8 P.M.
Antiquaries	Somerset House	Thursday	8 P.M.
Royal Institution	Albemarle-street	Friday	8 P.M.

## SOCIETY OF ARTS.—MEETINGS OF COMMITTEES.

MONDAY, Feb. 20.—Correspondence and Papers at eight, on the volume of Transactions.

TUESDAY, 21.—Polite Arts at half-past seven, on the claims in architecture; and Mr. Wolf's specimens of drawing with creta levigata.

THURSDAY, 23.—Mechanics at half-past seven, on Mr. Whittle's self-acting feeder for a steam-engine; Mr. Doda's locomotive wheel; ditto's thermometer for a steam-engine; Mr. Humphreys on Mr. Doda's safe valve for a steam-boiler; and Mr. Woodhouse's rotary steam-engine.

TUESDAY, 28.—Manufactures at half-past seven, on Mr. Webb's jacquard machine for weaving velvet; and Mr. Ryan's apparatus for drying silk in the loom. After which, Chemistry, on Mr. Hoby's cure for dry-rot; and Mr. Valle's safety tube for cyder casks.

THURSDAY, March 2.—Mechanics at half-past seven, on Mr. Soper's apparatus to prevent accidents in stamping letters containing explosive substances; Mr. Gurnes's trouser-guard; Mr. Valle's check for collectors, &c.; Mr. Steel on destroying noxious vapours in smelting ores; Mr. Reynolds on guiding balloons; and Mr. Poval's apparatus to prevent persons from being buried alive.

MONDAY, 6.—Accounts at half-past seven, on monthly audit. A. AIKIN, Sec.

## PUBLIC COMPANIES.

## MEETINGS.

South Eastern Railway	10, Coleman-street	Feb. 18	1.
London and Havre Steam	23, King William-street	18	1.
Thames Haven Dock and Railway	London Tavern	18	1.
Rhymney Iron Company	London Tavern	22	1.
Alliance Gas Company	29, Finsbury Circus	22	1.
Alten Mining Company	London Tavern	27	12 for 1.
London Grand Junction	68, Cheapside	27	12.
Tavistock Mining Company	6, Austin Friars	28	11.
Arigna Iron and Coal Co.	9, Liverpool-street	28	1.
Southampton Docks	George and Vulture Tavern	28	12.
General Steam Navigation Company	69, Lombard-street	28	1.
Hayle Railway	Rectory-house, London-wall	28	1.
London and Westminster Bank	London Tavern	March 1	1.
Imperial Brazilian Mining Company	London Tavern	2	2.
Great Wheal Prosper Mining Co.	Liverpool	2	11.
Kent Water Works	George and Vulture	6	12.
Penoles Gold Mining Association	N. and S. American Coffee-h.	9	12.
Blaenavon Iron and Coal Company	4, Old Broad-street	9	11.
Kerrow Mining Company	46, Lime-street	13	0.
East Cornwall Silver Mining Co.	London Tavern	14	1.

## CALLS.

Trevorgus Mining Company	10s.	Feb. 18	Sir C. Price.
West Cornwall Mines Investm.	1l.	18	Glyn and Co.; Vivian and Co.; Helston; Hodge and Norman, Devnport.
New South Hooe Mining Co.	10s.	18	Stone, Martin, and Co.
Kellew's Mining Company	10s.	18	Sir W. Lubbock and Co.
British Copper Mining Company	5s.	18	Sir W. Lubbock and Co.
Ulster Canal Company	2l. 10s.	20	Smith, Payne, Smith and Co.
Tamar Silver Lead Co.	1l.	23	Vere, Sapte, and Co.
Wheal Triumph Mining Co.	1l.	27	Jeffery, Camborne; Cornwall and Devon Bank.
Jamaica Steam Navigation Co.	2l. 10s.	Mar. 1	Glyn, Halifax, and Co.
Hayle Railway	5l. 10s.	April 3	Ransom and Co.
Midland Counties Railway	5l.	1	Smith, Payne, & Co.; Banks of Liverpool, Manchester, and Birmingham.
Wheal Lenoy Mining Company	2s. 6d.	3	R. K. Frost, Launceston.
Alliance Gas Company	1l.	12	Ladbroke and Co.
Kefu Lead Mining Company	1l.	15	Spooner, Attwoods, and Co.
Rhymney Iron Company	3d.	April 13	Glyn, Halifax, and Co.
European Gas Company	2d.	5	Ladbroke and Co.

## DIVIDENDS.

Royal Irish Company	1l. 3s.	Feb. 18th.
Portsmouth & Farnington Water Works		April.

## NOTICES TO CORRESPONDENTS.

**WEST CORN MINE COMPANY.**—The action in this cause is set down for trial on the 25th inst., in the Court of Common Pleas. We feel it a duty thus to announce the circumstance, having experienced so much kindness in proffered assistance and the communications of those who take an interest in the proceedings. The importance to be attached to the result must be felt by all shareholders who repose confidence in those who have the management of the affairs of the company in which they may be embarked, especially when 165,000l. is involved. We shall endeavour to give a second edition, next week, with report of the trial.

T. H. B.'s letter, which was in type, having appeared in the columns of a contemporary, renders its insertion unnecessary.

Will "A MINER" communicate with us?

**PRICES OF SHARES.**—We regret to have occasion to offer an excuse for some errors which appeared in our list of prices last week. We can only say that we are happy to receive information at all times, and to correct errors; but the difficulty of obtaining a correct list can only be appreciated by those who are situated like ourselves; at the same time, we have nothing to offer in extenuation for last week's prices, which were in several instances incorrect.

THE MINING JOURNAL,  
And Commercial Gazette.

LONDON, FEBRUARY 18, 1837.

It will no doubt be in the recollection of many of our readers that we have repeatedly pointed out the necessity of establishing a "School of Mines" in this country, somewhat similar in its nature and objects to those institutions for the instruction of miners, which have long existed in France, Germany, and other countries, and that various suggestions for the accomplishment of this object, have at different times appeared in the columns of the *Mining Journal*. Our endeavours to direct public attention to this important subject were not wholly unattended with success; our views were adopted by many, valuable suggestions were offered to our consideration, and promises of support were tendered. All that we were able to accomplish, however, fell far short of what was required to effect an object of such magnitude and importance, and we were, therefore, reluctantly obliged to rest contented with having drawn public attention to the subject, and thus laid the foundation for a more successful result at some future period, whenever circumstances might appear favourable to bringing forward again the plan which we had in view.

The present time is not, perhaps, so auspicious as we could have wished, as the general depression of commercial affairs, and the procrastinated success of recent mining speculations, may be the means of withholding the support of many, who would otherwise feel an interest in the proposed institution. Notwithstanding this unfavourable position of affairs, we are induced to bring forward the subject of a "School of Mines" on the present occasion, in consequence of having received the following letter from Sir CHARLES LEMON, one of the most influential gentlemen in that great mining county of which he is a representative in Parliament.

"SIR,—You have more than once directed the attention of your readers to the want experienced in this country of the means of scientific education for the superior orders of miners; and you may, perhaps, have seen some allusions to a pamphlet, written by me with a view to induce the Committee who have the disposal of what is called the Dunstanville Fund, to reconsider the proposed plan of dividing their surplus into small annuities, and to contemplate, rather, the propriety of endowing a Professorship in connexion with a School of Mines in Cornwall. The final appropriation of this fund is now postponed to August, 1838; so that ample time is given to pursue the subject, and acquire useful and accurate information respecting mining schools else-

where; and I trouble you with this letter, to say that I shall be most happy to receive, either directly or through the columns of your paper, the suggestions of any of your correspondents, who may turn their minds to this subject, and shall at any time be in possession of information which may be relied upon as accurate. I have the honour to be, Sir, your obedient servant,  
"London, Feb. 11.  
C. LEMON."

It affords us great satisfaction to find there is at the present time a prospect of establishing an institution for the instruction of miners in the county of Cornwall; and we must express our hopes, not only that this design may be carried into effect, but that it may prove the commencement of a National Mining College, worthy of the genius, the wealth, and the vast mineral resources of Great Britain, and calculated to carry her triumphantly through that tremendous competition with the produce of foreign countries, to which, on a late occasion, we adverted at considerable length. In appropriating the surplus of the "Dunstanville Fund" to the purpose suggested by Sir CHARLES LEMON, we conceive the Committee will not only be conferring an important and lasting benefit on the county of Cornwall, but also be acting in perfect unison with the character of the lamented nobleman, to whose memory this tribute has been offered. Not many weeks have elapsed since we had occasion to remark on the liberal and munificent conduct of Lord DE DUNSTANVILLE in relation to the large mining property which he possessed—conduct which has endeared his memory to the county of Cornwall, and more especially to the miner—in the reverse and fluctuations of whose precarious pursuits his lordship ever felt the warmest sympathy, and in whose favour he never hesitated to make, when necessary, the most generous pecuniary sacrifices. Greatly indeed would the mines of this country benefit, were the lords of mines generally to follow so noble an example; often does it happen in the vicissitudes of mining that the dues become insupportably burdensome to the adventurers in impoverished mines, and in some cases, by absorbing a portion of the funds necessary for prosecuting works of trial, they are even the means of the concern being finally abandoned, and the persons engaged being thrown out of employment. It is of little avail in such cases, tardily to resign that which can no longer be retained, when with exhausted finances, and sick "o hope deferred," the only alternative of the adventurers is to close the mine. Far different, however, was the conduct of Lord DE DUNSTANVILLE on such occasions; not only were the dues promptly remitted, but the shares held by adventurers possessed of limited means, were often taken up by his lordship, and funds thus provided to carry mines through periods of difficulty, so as to prevent the destitution of the numerous families relying on them for support.

Although chiefly called upon to consider Lord DE DUNSTANVILLE in his relation to the mining interest, we may also be allowed to remark, that his actions through life were invariably distinguished by the same benevolence and public spirit, and that the loss of this nobleman will long be felt and deplored, not only in the immediate vicinity of his extensive domains, but throughout the county of Cornwall, while the commemorative column on the rugged summit of Carn Brea, will long attest to future and far distant generations the deep respect in which his memory was held.

The final decision of the committee with regard to the appropriation of the surplus of the "Dunstanville Fund," is a subject which it is not our province to discuss; we would, however, observe, that of the two excellent plans now proposed—that of providing for the instruction of miners, or that of affording pecuniary assistance by means of small annuities—we conceive the former to be most beneficial. In reference to this opinion we may remark, that the claims of the unfortunate admit of being readily relieved by individual benevolence, which will in most cases be fully adequate to furnish the required aid; while the great object which it is now proposed to effect, has little probability of being accomplished, unless a commencement be made in the mode which now presents itself, or through the medium of a committee of influential gentlemen formed for the purpose of carrying the plan into execution, and already in possession of a certain fund available for its promotion, which, when a commencement is once made, may become the nucleus of further contribution.

The subject of a "School of Mines" has already engaged much of our attention, and the plans we formerly proposed have since been considerably matured, and shall, at an early opportunity, be presented to our readers, as affording information of the nature requested by Sir CHARLES LEMON. Our design is a general one, intended to embrace the whole mining interest of Great Britain; but a plan so extensive can, of course, only be rendered perfect by repeated consideration, and by frequent reference to institutions of a similar nature already existing in other countries. We beg, therefore, to invite the attention of our correspondents to the subject, and shall be happy to receive from them any suggestion bearing on the subject; and also, any accounts of Foreign Mining Schools, a subject on which the most minute details will be acceptable. Should the proposition of Sir CHARLES LEMON be carried into effect, we have no doubt its benefits would soon become so apparent, that similar institutions would spring up in other mining districts; thus, forming parts or sections, which might in time be combined into one great whole, under the management of a Council of scientific and practical men in the Metropolis—a body which ought to be empowered to examine the attainments of students, and to bestow certificates proportioned to their qualifications—thus, at the same time, stimulating their exertions, and affording their employers an ample guarantee of their capability of undertaking the various situations of trust, which might be reposed in them.

We have observed with considerable regret the continued fall of the standard of copper, which has been going on for the last two or three months, and has at length reached a point which must be seriously felt by our copper mines, and more especially those in Cornwall, which, from their great depth and other circumstances, cannot be worked without heavy expenses. During the first six or seven months of last year, the standard rose progressively, with but little fluctuation, to a height which we have rarely witnessed, and which we felt assured at the time could be long maintained.

At the beginning of 1836, the standard was 111l. 12s.; during the months of February, March, and April, it reached an average of about 120l.; in May and June, of 130l.; in July and August the rise continued, the average of the last month, during which the maximum was attained; being about 139l. 10s., and, therefore, very far exceeding that of many years preceding. During the four latter months of the year a decline was manifested, but still the high average standard of about 130l. was maintained notwithstanding.

During the present year, a most serious depreciation has taken place, which will be most clearly exhibited by the following tabular view of the result of sales for the last seven or eight weeks:—

		Standard.	Produce.
1836.—December 22	22	£131 14 0	7
" " 29	29	126 19 0	7½
1837.—January 5	5	127 16 0	7½
" " 12	12	122 15 0	7½
" " 19	19	122 5 0	7½
" " 26	26	116 12 0	7
" February 2	2	109 4 0	7½
" " 9	9	107 16 0	7½

The great fall of the standard shown in the preceding statement, is, we believe, the result of many causes, chiefly, perhaps, the present depressed state of commercial affairs, and the loss recently sustained by parties who have usually been large purchasers in the market. Something, too, must be attributed to the natural re-action following the excessive rise of 1836, to which we have before alluded, while the importation of foreign copper has doubtless also contributed to produce this effect.

We this week purposed to have directed attention to the table introduced in our present number, of the produce of copper mines in Cornwall for the past year, the aggregate amount of the value which is nearly one million, but want of space from the pressure of mining correspondence, and other articles which have remained over, precludes our so doing. A reference to the table itself will, however, doubtless, convey to our readers the impression which should have endeavoured to make—the importance of our mining interests, the large returns now making from mines formerly abandoned, and the absurdity of relinquishing at the moment prospects which never could have been reasonably entertained being realised up to the present period, in many of those adventures which have been set on foot within the past two or three years.

Another subject which we were anxious to have noticed, was that of the amended regulations adopted at a late meeting of the Wheal Sister's Mining Company, when the propriety of registration was acknowledged, and that course adopted. The meeting advertised for the dissolution of companies from the non-payment of calls, and those contemplated, where a large capital has been expended, in some instances, most lavishly, also require remarks which we must, however, defer until next week.

## THE FUNDS.

CITY, SATURDAY MORNING.

We are pleased to have to notice a general advance in public securities having experienced a rise of full one per cent. in the course of the past week, the extreme prices being 89½ and 90½—the latter having been attained yesterday. The movements of the Bank have in some degree tended to this advance and the restoration of confidence, which, however, is but partial. Several country failures have taken place in the early part of the week; a considerable degree of distrust was manifested, but a more cheering appearance presented itself on its close.

Exchequer Bills have ranged between 26s. and 29s. pm.; India Bonds 22 to 25; Bank Stock, 208 6½; and India Stock, 257 6½. Spanish advanced from 25½ to 27½, which was the last price quoted.

In Railroad shares a depression is observable, principally to be attributed to the promulgation of the report of the London and Birmingham Company, that additional capital would be required, which has caused the shares in that Company to fall to 46 pm. London and Southampton are flat, at 11½ dis. On the other hand, we observe London and Greenwich have advanced, being now quoted at 1½ to 2.

In Mining Shares a considerable improvement has been manifested several concerns, although some are looked on with a degree of distrust. An advance has taken place in many, as will be observed by reference to our Share List, and there is every reason, judging from the movement of the market, to believe that when well weeded, as is daily greasing, the shares of those companies honestly concocted and honestly conducted, will find their value in the estimation of the public.

Consols for account advanced yesterday from 90 to 90½, and for 90½ to 90½. The premium upon Exchequer Bills continues at 27 29; Bonds, 23 25; Bank Stock, 207½.

The speculations in Spanish Stock have been very considerable, but off at 27½; Dividend Coupons, 45; Portuguese Five per Cent. Three per Cent., 32; Colombian Bonds, 25½; Mexican, 25½.

The Share Market has presented rather an active appearance. Birmingham have fallen to 46½ pm.; Great Western to 9½; Manchester and Leeds to 3½; while Mining Shares are better. Holmshurst have done at 17, and others have a firmer appearance.

**LONDON AND BIRMINGHAM CANAL.**—We are desired to state there is no truth whatever in the report circulated in several newspapers that "the iron masters having gained their point by a reduction of tonnage on the Grand Junction Canal to the extent of sixty thousand pounds a-year, will let this measure die a natural death." And we desired further to state, that if the application to Parliament is not in the present session, it will be delayed on account of the request of select committee of the Grand Junction Canal Company, in order that companies may apply for Acts at the same time, namely, in the session 1838, and, by a combined effort, effect all the contemplated improvements between Birmingham and London.

**EXPORTATION OF THE PRECIOUS METALS.**—The exportation of silver and gold coin from the port of London during the past week, ending 14th instant, to foreign ports, is as under:—

Silver bars, Hamburg	2179 oz.
Silver coin, Madeira	3000
Silver coin, New York	9000
Silver coin, Lierra Leone	20,000
Gold coin, Mauritius	3925

**ANCIENT MINES IN SYRIA.**—The director of mines for the kingdom of Greece was at Syria a few months since, and I took one or two excursions with him. We discovered on the side of a hill, between the lower towns, an iron mine which had been formerly wrought, though it still deserves attention. The excavation was carried vertically into the side of the hill, and is now used by shepherds for their flocks, and is called the black sheepfold. A little in front of the entrance, stands a large mass of the ore, eight or ten feet high. I remember that the mine had probably been wrought by the Venetians, towards the end of the period when they had possession of the island, and that would account for the work having been interrupted. The director replied, that the Venetians would have made use of gunpowder; but it is evident that the ore has been hewn out, and not blasted, it must have been the work of the ancient Greeks.—Extract from a letter addressed to the Rev. J. J. Robertson, to Professor Silliman.



## MINING CORRESPONDENCE.

## ENGLISH MINES.

## HOLMBURN MINING COMPANY.

Feb. 13.—The lode in the eighty fathom level west is still very good: we have driven, during the past week, nine feet in this end, at 71. per fathom, which has produced not less than 1500. worth of copper ore. The lode in the level below the sixty-two fathom level, continues very good; and all other parts of the mines are progressing as usual. We sampled, on Wednesday last, at Cotchell quarry, 102 tons, 18 cwt. 3 qrs. of ore.

SAMUEL SECOMBE.

## BRITISH TIN MINING COMPANY.

Feb. 13.—*Twelve Fathom Level.*—The lode in Fagan's west end is about two feet wide, producing good work. This end is improved in the week. The lode in the Glow-hill end is small, and poor at present. *Twenty-two Fathom Level.*—The caunter lode, west end, is about eighteen inches wide, but poor at present. The caunter lode, east end, is about twenty inches big, and fine. The ground in the engine-shaft continues to be favourable.

JOHN BRAY.

## ROCHE ROCK MINING COMPANY.

Feb. 13.—The north lode, at the back of the sixty fathom level, is about three feet and a half big—good tiny branches. The same lode, at the fifty, is about two feet and a half big—ground favourable, but poor. The thirty fathom level, west end of engine-shaft, and east of Fagan's, is improving in production, but the ground is a little too hard. The tribute ground in the several levels continues much the same as last reported.

S. ROBINS.

## REDRUTH UNITED MINING COMPANY.

Feb. 13.—The lode in the forty-four fathom level, east of the engine-shaft, continues large, and the ground is more hard, and not so promising for tin as it was some time past; and at Buckett's, the north lode, in the twenty fathom level, is at present three feet wide, and more promising to produce copper ore than it was before. With the above remarks, I see little or no alteration in any part of the mines since my last. We sold our tin stuff at 19s. 6d. per ton last week for 1691. 19s.

R. GOLDSWORTHY.

## HAYLE CONSOLS MINING COMPANY.

Feb. 13.—Our levels at Trevigina mine continue much the same as when I wrote you on the 30th ult. The lodes are large and promising, producing good stones of tin ore. The recent rains having been heavy, we find great difficulty in drawing all the water with the whims; but, as in all probability the dry season is approaching, we expect this difficulty will be lessened; and before another rainy season arrives, we hope the steam-engine will put us into easier and better circumstances. At Busworgie mine, the lode in the engine-shaft has had a little more settled appearance during the last eight or ten days, but it is still poor; and in the other parts of the mine no alteration worthy of notice. At Hayle Consols mine we have been altering our pit-work, to enable us to sink the sump to a thirty fathom level; and, consequently, have made much progress lately in our other underground operations.

JOHN TREBILCOCK.

## ST. HILARY MINING COMPANY.

Feb. 11.—I beg to apprise you, that at the ticketing held at Redruth, on Thursday, our ores at Wheal Leeds were purchased by Messrs. Vivian and Co. at 41. 10s. per ton. *Wheal Leeds New Engine Shaft.*—From the contract we have entered into this day with the men for completing this shaft to a fifty fathom level, I have little doubt of its being accomplished by the beginning of April. *Fifty Fathom Level West.*—We this week put the men to work to raise and communicate with the old workings; and to complete this desirable object, I put the men also in the new western whim-shaft to assist them; and I have the gratification of reporting, that we have just holed to the old men's workings, and we have let down the water from all the old workings under the forty. We find their old sump nine feet above the back of the fifty west; and as their sump is described to be ten feet under what they called the forty-eight, we must have upwards of three fathoms backs to the west. *Fifty Fathom Level East.*—I am happy to report that this end continues productive; the lode is about eighteen inches big, twelve inches of which is good for ore, and will turn out, from present appearances, two tons per fathom. We shall be able to set in the back of this level, and the fifty west, two or three pitches in the course of a week or ten days, and be able to work the ground on tribute to advantage. *Forty Fathom Level East.*—We have resumed this end again, as will be seen by our setting report.

C. N. BEATER.

## ST. NEOT'S AND ST. CLEER CONSOLIDATED MINES.

Feb. 13.—In the north adit, we are driving west on John's lode, and find it still large and improving in character. We have not yet been able to get to work in Charles's shaft, the late rains having again increased the water, but we hope shortly to cut it down; we shall then proceed to drive on the two lodes at the fifteen fathom level, and sink the shaft to the adit. We are stopping the large lode above the shallow adit by eight men. The sump in the Panchbowl adit, which was at first only about a foot wide, is now six feet, and contains good work. The air being dead, we are pursuing the lode, in order to hole to the shaft (only a few fathoms distant), which, by letting down the water, will enable us to resume the work in the upper level also. We are stopping the manganese by two men, and find the lode is large, and makes a regular leader. *Tin Haiches.*—We have broken some work here during the short interval of dry weather, but the work is again on the increase, and we are now only able to work in the eastern part. The ground in the adit continues much the same. *Wheal Bank.*—The whim having been found ineffectual for keeping the water, we shall proceed forthwith to get up the water-wheel, and shall set the last next survey day. The pumps being ready, we hope shortly to realise the expectation formed of this part of the concern.

CHARLES ROW.

## SOUTH WHEAL LEISURE MINING COMPANY.

Feb. 11.—The prospects in this mine appear to be gradually improving. At the fifteen fathom level, driving east of the engine-shaft, the lode is about eighteen inches big, five inches of which is rich in yellow ore. At the twenty-five fathom level, east of the engine-shaft, the lode is three feet big, composed of mudi, spar, and rich stones of ore; it being, we consider, a promising lode. At this level, also, driving south towards the tin lode, the ground is rather a hard killas.

R. ROWE.

## WEST WHEAL BROTHERS MINING COMPANY.

The copper lode in the thirty-three fathom level, going west at Henrietta shaft, is looking more kindly than I have yet seen it, produces some good stones of ore, and does not underlay so fast as in the levels above; therefore, I think, from its size and appearance, it is likely to improve in depth. The silver lode at the forty fathom level east, is from fourteen to sixteen inches wide, producing some good stones of silver ore; we have taken up, since yesterday, six bagsful of tolerably good work, about three cwt. The lode, west, at the same level, is divided into branches by a horse of killas. Henrietta shaft is sinking satisfactorily, and the ground favourable.

JAMES CARPENTER.

## WEST WHEAL JEWEL MINING ASSOCIATION.

Feb. 13.—Buckingham's shaft is now down perpendicular to the bottom of the deep adit, and we have cleared about three fathoms south; here we can see a gozzan lode, with a small quantity of green oxide in it. We shall be able to clear this level immediately, as soon as we can bring away the stuff. We continue to sink and stope from the winze west of Quarry shaft: the bottom does not appear so good as last week, but there is a good stope of the going west. On setting-day, we increased the number of men driving the deep adit west, on Morcom's lode, from four to six; and although a little advance in price from our last month, we do not like it the worse, as we often find the best grey ore when the lode is of a close nature. The lode is from three and a half to four feet wide, having two good walls and a regular underlay, composed of spar, gozzan, and peach, mixed with grey, black, and yellow ores.

MATTHEW WILLIAMS.

## NORTH CORNWALL MINING ASSOCIATION.

Feb. 11.—*Wheal Hope.*—Since my last report I find no particular alteration in this mine. The sumpmen have not yet finished cutting the plat—the ground is very hard: I expect they will take the whole of next week, and part of the week after. The sixty-five fathom level east, the lode is looking just the same as when last reported. The fifty-eight fathom level, good stones of lead have been broken this week, but the lode is not rich at present—the ground very favourable for lead. *Wheal Thomas.*—In this mine I find no alteration this week, except in the seventeen fathom level west, the lode showing great indications for lead. The ores raised in December will be sampled on Monday, the 13th inst., which I expect will be about thirteen tons.

JAMES STEPHENS, Sen.

## WHEAL TRIUMPH MINE.

*Dolcouth, Feb. 8.*—Wheal Dobna lode had a fine appearance near the surface, which induced good practical miners, a few years since, to erect a water wheel on it, and to sink twenty fathoms under the adit. Their expectations were not realized, in consequence of an elvan or porphyry quarry having come in contact with the lode, which carried it fast northward, and sprung it into a very narrow surface, which rendered it small and unproductive: they then abandoned the mine altogether. The present adventurers have driven the adit eastward; in doing which, they have found the lode the other side of the quarry, the lode-party were anxious to do, but could not. The base has now a regular and strong appearance for thirteen fathoms long, and has still in the eastern end considerable strength. The width varies from two feet to four feet—is composed principally of white spar, with fine bunches of gozzan: it is highly desirable to continue driving east on this lode with all convenient speed: an engine should not be erected immediately. The south lode has been driven by the present adventurers about twenty fathoms; it has been generally small and poor. They have lately passed a

cross-course, since which the lode has a very different appearance. It is now one foot wide, underlay one foot and a half in a fathom; has a very regular appearance, and produces fine specimens of yellow copper ore, with branches of black copper ore. A shaft is now being sunk on the present end, which, when completed, will answer the twofold purpose of ventilating the end, and for draining the stuff from driving the end. It may then be pursued at a small expense, the ground being of a moderately soft nature. It is highly probable that these two lodes are two of the Great Dolcouth lodes, which have produced such vast quantities of copper ore. From a review of the whole, I think it may be said with propriety, that the mine is a good speculation.

CHARLES THOMAS, Jun.

## CORNWALL UNITED MINING ASSOCIATION.

*East Wheal Providence, Feb. 11.*—We have driven five and a half fathoms north, and we have not yet cut the lode, but kindly ground for copper as can be seen. I think the lode goes down righter, and that we shall yet cut it. The lode in the western end (on the south lode) has much improved this week. On Thursday we drew up some work with very good stones of best ore in it. I was underground yesterday, and broke some copper, and brought it to surface—as fine as could be seen—I should think, worth 15s. per ton; and there was a branch in the end five or six inches big. The lode varies in size very much—sometimes one and a half foot wide, sometimes larger, and then one foot or ten inches only. I will do every thing in my power to further the work. I hope to set the stamping-mill (six heads) at work next Saturday.

WM. HOOPER.

*Sileer Hill, Feb. 13.*—The winze in the bottom of the adit is about five fathoms deep; the ground is favourable, and the lode still kindly—interspersed with black ore. In the ten fathom level west of the engine shaft, the lode is very large; we have a regular south wall, but the north wall we do not see as yet, although we are carrying the lode from three to four feet wide. There is still good copper in it—more than we could reasonably expect, being only about twelve fathoms from the surface.

WM. BENNETTS.

*Truro, Feb. 13.*—In sinking the sump at *East Wheal Providence*, a lode has been intersected at the depth of about six fathoms, from which have been broken some good stone of copper and tin ores. In consequence of a difference of opinion between the captain on the mine and two respectable mine agents, who have recently inspected it, whether the lode cut as above described, is a continuation of the copper lode which was discovered in the dit level, it has been determined to drive north and south from the present ottom of the sump, in order to prove whether it be the same lode or not. In extending the level south, the lode which had been cut in the shaft was almost immediately intersected; but no lode north of the shaft has as yet been discovered. At *Sileer Hill*, the engine keeps the water with the greatest ease.

JOHN BROWN.

## TAMAR SILVER LEAD MINING COMPANY.

Feb. 13.—Since my last report the lode in the eighty-five fathom level (which appears to have passed through the disordered ground noticed in my report of the 23rd ult.) has considerably improved in appearance, and in the seventy-five fathom level it has further improved during the past week. We have also an ore lode in the winze, which is sunk about six and a half fathoms below the sixty-five fathom level, about five fathoms before the end in the seventy-five fathom level. We have now seventeen tribute pitches in work, having set two since my last report. We shall sample a parcel of ore on the 18th inst. The quantity is expected to be upwards of twenty tons; but the succeeding samplings, from the increased number of pitches in work, and from making returns from the halvans, which have hitherto been accumulating, may be expected to be greatly increased in quantity.

T. PETHERICK.

## ALBION MINING COMPANY.

Feb. 14.—We have extended the seventy fathom level, east and west from the cross-cut, about six feet each way: the lode in the east end is about three feet wide, composed of spar, with a little ore. The same level west, lode one foot wide. The lode in the sixty-six fathom level, east and a half ton per fathom. The winze under the forty-seven produces about one ton per fathom. The lode in the forty-seven east, on the south part of the caunter lode, is two and a half feet big; the upper part of this end is not rich, but we have a good branch of ore towards the bottom part, which produces near one ton per fathom, and has a kindly appearance. The lode in the forty-seven east, on the north part, is large; it is three feet big, impregnated with ore throughout. The lode in the forty east is about fifteen inches wide, producing large and good stones of ore. This end has a kindly appearance. The thirty, east from Nicholson's, assumes just such character as the last-named level. Nicholson's shaft is sunk under the thirty fathom level eight fathoms; ground still favourable, and congenial for ore.

JOHN MIDDLETON.

## EAST CORNWALL MINING ASSOCIATION.

Feb. 13.—We beg to hand you the account of our proceedings of last week, with the state of the mines. We have been getting on with our sinking the engine-shaft with all speed. The lode in the shaft is still of a good size, but we cannot speak of any improvement since our last. The lode in the forty-five fathom level, west of the engine-shaft, is from two to three feet wide—spar, mudi, white iron, and flucaan. The forty-five fathom level east we have suspended for the present. The lode in the ten fathom level, east of Mexico shaft, is about twelve inches wide, composed of white iron, mudi, and flucaan. The lode in Mexico shaft is about sixteen inches wide—mudi, white iron, and some stones of silver. The lode in the back of the ten fathom level, about three fathoms east of Mexico shaft, is kindly for silver, but not rich at present. We have had some delay in Flap-Jack shaft, by reason of breaking the windbore that we repaired some time since, and have been obliged to make one to go in its place, that have prevented our getting the shaft to the twenty fathom level, as we anticipated, which we should have done in regular working, but in consequence of the delay it will take this week to complete.

RICHARD BENNETTS. JOHN WILLIAMS.

## POLBREEN MINING COMPANY.

Feb. 11.—I beg leave to hand you the following, as my report of this week. The ground in the cross-cut driving south of Stainsby's engine-shaft, at the fifteen fathom level, is much improved. The ground in Vice's, or Flat-rod engine-shaft, going down below the twelve fathom level, is very moderate for sinking. The Flat lode driving east at the twelve fathom level, is about six inches wide, good work for tin. At the back, stopping on the Flat lode (twelve fathom level) towards the downright, we have a similar lode as to size and quality, worth from four to five hundred white tin per one hundred sacks. In extending this level south on the cross-course, since my last we have cut Dorcas' lode, and which affords me pleasure in observing that it is about six inches wide; of a very encouraging description, the whole being good work for tin. In the tribute department we have nothing new, the men being chiefly employed in driving the lode. On Tuesday next we intend to sample about twenty-one tons of copper ore, and about the latter part of this month we shall have ready for sale, we calculate, from five to six tons of black tin.

RICHARD ROWE.

## CORNWALL GREAT UNITED MINES.

*Eastern District, Feb. 12.*—Yesterday was our measuring and setting day. We set the following bargains:—six men to break tin stuff, west of Wheal Jenka east shaft, at 70s. per 100 kibbles; ten men in the middle back, at 70s. per 100; eight men in the western back, at 73s. per 100. The work we are raising from the above backs is of the same quality as before, and the quantity about 5000 sacks per month. Wheal Julia deep adit, by six men, to drive west two fathoms, at 121. per fathom. The lode at this end is very much improved, and producing excellent stones of tin. The shallow adit by six men, to drive south one fathom, or cut through the lode, at 141. per fathom. The lode in this end is very good, producing fine stones of tin, and of a better quality than any I have seen raised in this mine before. These levels being about the same distance west from Moon's shaft, and each of them so very much improved, I am of opinion we are getting near a very rich course of tin. This part of the mine being quite unexplored from the deep adit to the surface, which is fifty fathoms, speaks very loud for a good thing. The stopes west of the winze, by four men, at 84s. per fathom; east of the winze, by four men, at 84s. per fathom. The lode in these stopes is also much improved. Wheal Julia, since my last report, is very considerably improved, and I hope in my next to give you a still more favourable account; the prospects are better every day. We are clearing the Clannacombe adit as fast as we could calculate on; I hope by the end of this month to clear it so as to be able to put men to drive towards Wheal Julia. *Wheal Prosper Adit.*—The lode in this end is looking more promising than it has for some time past, and producing tin. There is now nothing doing in this part of the mine, as this, and the two following levels are suspended until after the erection of our fire stamps, in consequence of the heavy charges attendant thereon. The deep adit end, west of Crease's shaft, driving towards Wheal Prosper. Greenhill's adit, driving west of Bullock's engine-shaft, which shaft is nearly sunk to the ten fathom level. Our water-stamps are all at work, and doing very well. The masons are getting on with the building of the engine-house as fast as the weather will admit of: we have continual rain every day. Some parts of our engine are brought on the mine. The boiler builders are getting on very well, and will complete them in good time. We shall get about five tons of tin ready to carry to the Calstock smelting-house on Friday, the 24th inst.

JAMES CLYMO.

## REDMOOR CONSOLIDATED MINING COMPANY.

Feb. 13.—The prospects at Johnson's shaft are daily improving. The lead lode in the forty fathom level is not only very encouraging for the next level (fifty fathom level), but is at present very productive. In the end south we have driven through a rich lode in the past week; it is now about twelve inches wide, yielding one and a half ton of silver lead ore per fathom of better quality than any hitherto broken in this level. There are six pitches

working on this lode, and the tributaries are earning very good wages at their respective tributaries. Three pitches in the back of the thirty fathom level are looking very well, one of which will produce several tons of very rich ore, far superior to any ever raised in the mines. The increasing value of this lode may be seen by referring to the following returns:—On the 10th Sept. a parcel was sold, sixteen tons, value 2011. 12s. On the 21st Jan. ditto., twenty-four tons, 3631. 19s. 3d.; and we propose to sample in the course of a fortnight, from thirty to forty tons, superior in quality to either of the above, which will leave a profit over the current month's expenses, the sampling of which has been delayed, owing to the dressing of the ores being retarded by the prevailing sickness among our labourers, and the severe weather during the past week. The lead lode at the thirty fathom level north of Johnson's shaft is improving, and the ground is softer than it was. We are using every exertion in sinking Johnson's shaft below the forty fathom level, to facilitate opening ground on the lead lode at a greater depth, which, from its present prospects, holds out reasonable expectations of profitable returns. Considering the daily expense incurred by draining the water by steam power at the twenty fathom level at the engine-shaft, without any trial going on in that part of the concern, I beg to suggest the propriety of your resuming the driving of that level west on Trelence's lode, a considerable sum having already been expended in extending it almost to the point, in respect of which you are aware considerable expectations have been entertained.

WM. PETHERICK.

## UNITED HILLS MINING COMPANY.

Feb. 14.—*Twenty-five Fathom Level.*—In driving east at this level, the lode is from three to four feet, chiefly composed of gozzan, with some good stones of black and yellow ore. In the western end of this level the lode is two feet wide, producing ore of a fair quality. *Adit Level East United Hills.*—On the western end of this level the lode is five feet wide, from two to three feet good for ore. In the eastern end of this level the lode is three feet wide, producing some stones of ore. In driving west at the adit level at east United Hills, the lode is one foot wide, producing some good yellow and black ore. *Ten Fathom Level.*—The lode in the eastern end of this level is two feet wide, producing some stones of ore, with a kindly appearance. *Twenty Fathom Level.*—In driving west at this level the lode is four feet wide, rather improved for ore since last reported. In the eastern end the lode is three feet wide, one foot good ore, with a very promising appearance. *Twenty-seven Fathom Level.*—We can report no alteration in this level during the past week. *Thirty Fathom Level.*—In driving east at this level, the lode is three and a half feet wide, two and a half of which is very good for ore. *Thirty-six Fathom Level.*—There is no alteration in this level since last reported.

C. PENROSE.

## PERRAN CONSOLIDATED MINING COMPANY.

Feb. 13.—I have much pleasure in observing that our prospects in these mines, in general, are encouraging, both the engine shafts are sinking with moderate speed, taking into the account our having such wet and heavy ground. At the twenty fathom level, driving west on Mudge's lode, we find it to be large and kindly, producing good stones of lead. About the latter part of next week we expect to hole Mudge's east shaft, from the ten to the twenty fathom level, which will enable us to set some new tribute pitches. About the latter part of next week, we expect to hole Mudge's east shaft, from the ten to the twenty fathom level, which will enable us to set some new tribute pitches. At the twenty fathom level, we are rising a winze on Anthony's lode, to communicate to the ten fathom level, which we hope will be accomplished this month, and will also give us more tribute ground. At the ten fathom level, driving west on Mudge's lode, we are still passing through ore ground, all of which will be taken away on tribute as soon as we can get down our new surface shaft, sinking to the west of the present end, and to effect such communication may require nearly a month from the present time. We have nothing particular to state either in the driving of the south cross-cut, or in sinking West Wheal Hope shaft. With respect to the tribute department the several pitches are looking likely to prove so productive as to allow the tributaries to get good wages.

RICHARD ROWE.

## EAST WHEAL STRAWBERRY MINING COMPANY.

In reference to our report of last week, the thirty-five fathoms cross-cut, driving south towards the south lode, is now under Grant's whim-shaft, there still being about five fathoms to effect a communication; we shall put the men to rise against it, as the water is very quick in the same shaft; and it affords me pleasure to say that the ground so far driven at this level is very much changed for the better, it being now of a whitish killas. At the twenty-five fathom level, we have not yet cut the lode to the west of the cross-course, but the end nearly corresponds with the lode in the winze, sinking under the fifteen fathom level, which is now about six feet to the west of the end, and wants about three fathoms of being down to the level. At Orchard, the lode in the nine fathom level east is pretty much as last reported. The lode in the sixteen fathom level east is rather improved for tin. The lode in the twenty-four fathom level is rather poor. Ditto western end is still pretty good work for tin. We shall have about four and a half tons of tin ready for the ticketing on the 21st. current.

FRANCIS EVANS.

## WHEAL LENOX SILVER, LEAD, COPPER, AND GENERAL MINING COMPANY.

Feb. 10.—In my last report I stated we had cut a lode in Archer's shaft, of a very promising appearance, but that we could not work it until the engine was erected, in consequence of the water being too powerful for us. I am happy to inform you, that this took place on the 20th of January, and in three hours the water was in fork. The reason why the engine was not put in motion at the time appointed, is not to be attributed to the negligence of the managers of the mine, nor to the engineer, but because we could not get the castings from the foundry, according to expectation, and of course could not proceed with the work. Since that time we have sunk through the lode, and discovered its size, direction, and quality. It is a large lode, six feet wide, running south-east by east, composed of spar, mudi, large proportions of zinc, lead, and hundreds of small cubes of yellow copper ore. This cannot be the lode in Pethick's shaft, which we intended to cut, because that runs east by north, unless the lode has made an angle, which I think is very unlikely; besides, in bringing up the open cut to Pethick's shaft, we came over several branches; these might form the lode in question. The conjunction of two powerful lodes (with other branches, in different directions) which must apparently take place in no great distance to the east, composed of the different ingredients I have already mentioned, with beautiful candied spar, smooth north walls, and flucaan upon them, has greatly raised my opinion (though favourable before) of the future prosperity of the mine. Our shaft is now fifteen fathoms from the brace, and eleven fathoms below the adit level. We intend to drive to prove the lodes.

JOHN KNEEBONE.

## BRITISH COPPER MINING COMPANY.

Feb. 15.—The reason of my silence respecting the sampling was, that I knew not what to say about. In the first instance, after the water was in fork, we had to fix the tramroads and repair the shaft, and when that was completed, we were prevented from driving by the roughness of the weather. I think we may be able to sample, next Tuesday week, 150 tons of ore of the usual quality. We intend to sell the materials on Tuesday, the 23rd inst., by public auction, but fear that we shall be able to sell but little, save the timber, as the articles are not at this moment much in demand. I did hope that we should have cut the lode at the sixty-two, and let down the water, and have opened on it in several places in the bottom of the fifty-two, so as to be prepared with a favourable report for the general meeting; but the hard ground we have met with in the sixty-two cross-cut, has put this beyond the reach of possibility. I see scarcely any difference in the appearance of the vein since Captain N. Vivian's report in October last, but think that our prospects will admit of a much better report. The lode in the forty-two fathom level is improved, both in size and appearance, and is composed of caple, spar, and copper ores of good quality, although the quantity is not at present great. The lode in the fifty-two east has, for some time past, been small, but it now appears to be increasing in size, and kindlier; from a larger quantity of water issuing from the lode than usual, we are led to hope for an improvement of importance in this place. Although the other parts of the mine are much the same, yet by means of the mine being better ventilated, the increased convenience of putting the stuff to shaft, and the regularity with which the engine keeps the water, we are sending large quantities to surface.

JAMES STEPHENS.

## ENGLISH MINING COMPANY.

Feb. 14.—We sample to-day 563 tons. Under the present circumstances of the copper market, I fear this is too large a sampling; nothing at either of the mines has transpired worthy of especial notice.

H. HUMPHRIES.

## NORTH CONSOLS MINING COMPANY.

Feb. 12.—Driving the sixteen north in a good killas country, the water still continues to increase. Driving the ten north, as usual, in a good killas country. Driving twenty-four east lode still continues large and coarse. Sinking a winze in the bottom of the new adit lode, about eighteen inches wide, composed of spar, gozzan, mudi, and good specimens of yellow ore; and at this time has a very favourable appearance for a future prospect. Sinking a winze in the bottom of the deep adit west from William's on the contra: at this time the lode is smaller than it has been for some time past, and still in a beautiful strata of white killas, but expect it will improve in size soon, and also in quality—as we know there are some branches to the north which will form a junction with the lode in sinking a few fathoms deeper. We have set five pitches, average 12s. 5d., out of the 20s. tributaries to dress the ores.

THOMAS SIPPETT.

London, Feb. 14.—Mr. Ashton submits the following report on his return from Cornwall, after visiting the North Consolidated Mines:—The directors having taken into consideration the actual situation of the mines, both as regards its management and its future prospects, resolved on the 3rd inst., follows:—That it is expedient that one of the board should forthwith proceed



to Cornwall, in order to inquire into the general affairs of the company, and to take such steps as the most likely to conduce to future success.

In pursuance of the above resolution, and being deputed by the board to carry its object into effect, I beg to state that I visited the mine, and after frequent discussions with Mr. R. Davy and Mr. Cardozo, the purser (both of whom are large shareholders), in the presence of Captain Tippet, and after conferring with those gentlemen on the course best to be pursued, and also taking the opinion of some leading practical gentlemen in Redruth, and having weighed all the circumstances connected with the general management of the mine, I deemed it expedient for the interests of the company, not to make any alteration for the present.

In reference to the underground workings of the mine, the tutwork operations are limited to twenty-two men, the greater portion of them being employed to drive the sixteen north from little whin to Barkle's shaft, to cut the north lodes; and as the indications are of a favourable nature, being under a large gozran lode, it is contemplated that they will attain that desired object, and with every chance of success in the course of a month or six weeks.

Four pitches had been set in the old workings previously to my arrival; another was set during my stay on the mine, at an average tribute of 12s. 8d. in 29s., the tributaries to dress the ores. The whole of the pit-work under the third fathom level engine-shaft, was on surface; these materials, with others not required by the company, I have directed the purser to sell by public auction forthwith, and expect they will realize about 300l.

As the most rigid economy is necessary in every department of the mines, I have deemed it right to discharge the second captain after the present month, which I found could be done with very little detriment to the concern. No attempt will be made to fork the flat-rod shaft until after the present floods abate and the springs subside; and I confidently hope that there is reason to expect, from all I have collected, that our chances yet are good, and by perseverance, science, and economy, good results will follow.

THOS. ASHTON, Chairman.

### FOREIGN MINES.

#### REAL DEL MONTE MINING COMPANY.

*Mineral del Monte, Dec. 17.*—Estimate of costs and returns for January month, 1837, comprising four weeks:—Costs, including mines, stores, and haciendas, \$37,560; Returns, thirty-one bars of silver, \$37,560. November produce was thirty-one bars, value \$38,025 7 4; December produce will probably be equal to the estimate thirty-one bars, value \$40,000.

Our wagons returned from Vera Cruz on the 12th inst., bringing up the machinery we required to complete the steam-whim and the Regla arrastras. The wagons will continue through the season going to the coast to bring up the remainder of the pitwork and machinery which are at Vera Cruz, in driving which, I mean, if possible, to arrange the journeys down in such a manner as may suit the silver remittances. With this view, therefore, I intend to detain the wagons for a short time, and to apply for a military escort to accompany them down immediately on the close of the present month; by this arrangement, the November and December months' produce, about sixty-four bars, may be sent down in time, I hope, for next packet.

As the 10,000l. bills, noticed in my last letter, could not be negotiated for the last packet, we were indebted to Messrs. Holdsworth and Co. about \$3600 at the end of last month. These bills have since been negotiated, together with others amounting to 6000l., which I found it necessary to draw for a supply of funds; the whole at the exchange of 45d.

*Mexico, Dec. 17.*—I wrote you on the 26th ult., and now beg to acknowledge the receipt of your letter, dated Oct. 1. The reports herewith forwarded, to which I beg reference, will furnish you with the usual details as to mining and hacienda affairs.

The extraordinary delay in cutting down the water from the Dolores bottoms, will be a matter of great surprise to you, as it is here; especially seeing that in other parts of the biscayna vein, and, indeed, throughout the whole district, water readily passes from one part to another to a great distance, and under circumstances, apparently, of greater difficulty than those of Dolores.

Under this disappointment, and the delay in getting an increase of produce, it is satisfactory, that while the driving goes forward, the sinking of the Dolores diagonal shaft is regularly proceeding in advance for another level, by which we may hope to obtain a quantity of high ore ground, which would place us in an advantageous position, afford us some reserve, and enable us to avoid the ruinous method of working underhand, or in water.

The same kind of advantage I hope we shall also be able to obtain at Terreros, where the shaft is already fifteen varas below the 168 vara level; and as it is now proceeding favourably, I hope we may calculate upon being able to drive a new level, so as to drain and work the vein below the 168 vara level before all the ore ground may be worked out above it.

The new winzes sinking under the San Miguel level, have a favourable appearance, and are now our chief support; and as the ores which they produce are of a better ley than those we have lately had from the nearly exhausted backs over that level, we may soon expect a corresponding improvement in the hacienda produce.

The prospects in the Santa Inez mine, with respect to the manganese ores, remain without much variation. The following statement of the silver produce of these ores, will, perhaps, enable you to form a more correct opinion of their value than any account hitherto sent you.

#### Manganese Ore smelted at Regla Hacienda.

1836.	Quintals.	Assay per monton.	Silver produce.
July	39	11½ marks	14½ marks
August	150	13½ "	66½ "
September	148	10½ "	49½ "
October	908	11½ "	344½ "

1520 or 506½ cargass 582½ "

Deduct loss of silver in refining and casting into bars (there appears to be no loss in smelting), 24 per cent. 14½ "

At \$8½ per marc 568½ "

Deduct cost of smelting, as ascertained by repeated experiments, including all charges, excepting that of general salaries, 1520 quintals at \$40 per monton 2026

506½ cargass at \$5 2 2662

Mine costs for August, September, and October, July being omitted as not much affecting the calculation 740

Three months' profit, about \$1922

Mr. Lanckner wishes to make further experiments to ascertain the proper proportions of the mixture of these with the biscayna ores for smelting; so far as he has yet observed, the best proportion is, manganese ores 12-biscayna 2; but we hope to find that a larger proportion of the latter ores may be admitted with advantage; the \$4 per carga, or \$40 per monton, is the cost of smelting the manganese ores without any mixture of the biscayna.

#### BOLANOS MINING COMPANY.

*Bolanos, Nov. 3.*—I beg to hand you this report for the last month by commencing as usual with the mine of Cocina: in the shaft, we have not been able to complete the lift on the Diagonal in the bottom of the shaft as yet, as the water has been up a great part of the month, besides the repairs we had to make after the rise of water; but that work is in a state of forwardness and I hope will soon be finished. In the Esperanza level, going north of shaft, the vein appears to be wider (about one vara wide), but, hitherto, does not improve in quality; the ground is not so hard as it was, and the price has been reduced to \$30 per vara. In the rise we have holed to the Canon de Guila, and it is complete to that place, which has greatly improved the air in the Esperanza level north, and laid open a great piece of ground between the two levels which will admit a great deal of room for the trial of the vein, as we had not the vein with us for some distance in the rising, having always kept Carbonilla for our guide on the upper wall of the vein. In the Canon de Guila north, we have done but very little since our last.

In Conjera our work has been that of the drainage, clearing stuff brought down by the water in the Santa Tomas level, and to resume the cross-cut going west at four varas south of shaft. We have also been making some trials of the vein south of shaft below Canon de Guila, between the San José cross-cut and the old barranco workings, which has improved since the commencement, but owing to the barreters not being properly acquainted with work of that description we have had some little difficulty with them; therefore, that work has hardly had justice done to it, so I cannot write much about it. In the Esperanza level south of the shaft we are still going on, but the ground being hard is against the progress.

In San José we have got the sinking lift down below the Santa Tomas level, the water in fork to the rubbish, and are clearing the same. I hope we shall soon get to the bottom of the shaft, as we have only about two varas more to clear. In the Santa Tomas level north, we are driving towards Conesera, but the ground being hard renders the progress slow. In the level south, we have got a bad run where the water broke through from Barranco, but I hope we are getting through the worst of it.

In Guadalupe we have been confined to the repairing of the shaft, pit-work, &c., keeping the water at the 234 vara level. In San Vicente we have been driving the cross-cut east, at 100 varas south of main cross-cut, where we have two branches, one of about one foot wide; and at about a vara horse, we have cut another branch, about six inches wide, but it does not appear that we have got the foot wall as yet; these

veins are not rich for silver. In the cross-cut, fifty varas south of, in ditto, we have passed through a vein about one vara wide with some good looking stones of ore in it, which we are now about to drive on, to proceed to the north of the said cross-cut; it does not appear that we have got to the foot walls of this either. In the north of the main cross-cut we have been timbering and changing timber all the month; we have also been opening a place at 25 varas north from the cross-cut to cut into the vein to see what it contains, and afterwards to sink a winze on the said vein in that place.

In Zapopa we have got the shaft clear and perfectly secure to the Esperanza level south of shaft, which we found broken very badly at 13 varas from the shaft, and how far it continues we cannot tell as yet.

In the San Abra level we have been changing some timber to the north of shaft, which is now finished in that place.

*Bolanos, Nov. 15.*—The cross-cuts between Zapopa and San Vicente, at the Esperanza level, are not yet completed; they are now cutting the vein, but so far, we have only seen small branches of ore, not very clean: the cross-cut north of San Vicente has not yet reached the vein. I believe that I have explained to you before, that almost all the Esperanza level was driven out of the vein, and these cross-cuts are now ready to prove it. Extending the same level north of San Diego through the old working, we have met a small pillar, which has at least proved that our predecessors have had a rich mine; I have sent by the conducta some specimens of the ores to the directors. They speak for themselves, and need no explanation on my part to prove that they are very rich ores; it is no small satisfaction for us to see that the reports of the riches of this mine were well founded, although it is difficult to say whether there is enough left in the planes to repay the company for their trouble and anxiety, and for the enormous capital which they have invested in it.

We expect to reach the same ground very shortly from the Conjera side, and to communicate the Santa Tomas cross-cut with Conjera shaft, having only a few varas to drive north of Cocina. The ores in the back of Esperanza have improved, but I cannot say the same of the end of that level, which is still poor, although the ground is more favourable for driving.

The enclosed report of Mr. Spangenberg will give you a statement of the ore benefited in the hacienda chica during the month of October. Our loss of silver in the patio has not been as much, as you will see by comparing the produce with the assay. The ores of Conjera, which have been benefited since, are an exception; but I hope, with a little perseverance, the azoguero will succeed with these ores the same as he did with those of Cocina. It is encouraging to see by the assays, that some improvement has taken place almost every week in the leys.

*Bolanos, Nov. 15.*—You will observe that our expenses in Bolanos have been higher than usual, which was owing partly to the costs of the hacienda chica; but to compensate this, we are getting a little silver, and I am in hopes that, by the end of the year, we will be able to send eighteen or twenty barras to the mint.

By the conducta, which was to leave Zacatecas on the 12th inst., I have taken the liberty to send you a small box of specimens of the ores found in the old working of Barranco, coming from the San Diego side. They formed part of a small pillar, and which gives evidence of what the mine must have been in former times.

The No. 1 is the common ore, which assays from two to four marcs per carga.

No. 2 is a mixture of rich fahl ertz, here called "pasta," and native silver.

No. 3 is very rich, and composed of a great deal of native silver, of a brown appearance of sulphure of silver, both brittle and flexible. A small piece of this, without any native silver, assayed eighteen marcs per carga.

No. 4. Pure fahl ertz, which, by repeated assays, gave 119 marcs per carga.

Of course, these very rich ores have been scarce, even in the time of the last bonanza; but the native silver is by no means uncommon.

I hope that we may find the other pillars and bottoms of Barranco equal to what we have already seen; the company might then expect to pay back, in a short time, the whole of the capital which they have invested in these mines.

*Sauceda, Dec. 15.*—From Mr. Schuchardt's reports you will see that there has been a change in different parts of the mine. The quantity of ores, it is true, has exceeded even the 3000 cargass a-week, which I had ordered to be raised; but the leys still remain the same: nor is this to be attributed to the bad weather alone; because, by comparing the produce of last month and of 1835, you will find that the ordinarios engaged in 1835 about eight marcs per monton, while this year they only produced seven marcs.

From Bolanos, I have not received the monthly reports, and they will probably be delayed another week. Before I had left that district, they resumed the sinking of the San José and Cocina shafts, but were obliged to stop the driving in the Santa Tomas cross-cut south, owing to the heat, and a soft bed of clay, which did not allow to make any progress; but as it is likely that the communication with Conjera by this time is effected, the place will be better ventilated, and they will continue driving towards Barranco.

Mr. Spangenberg is now smelting the ores raised in Cocina and Conjera, and at the moment I left Bolanos, I am happy to say the furnace was going as well as in former trials, having succeeded in reducing even some of the ores of San Vicente, which have always presented great difficulty.

*Sauceda, Dec. 15.*—The profits of last month have scarcely exceeded \$10,000, and I am afraid that this month will not be very brilliant, although 100 cargass of seconds, which I have ordered to be smelted, will help a little the produce.

*Sauceda, Dec. 1.*—The total produce of silver during the month has been 104 bars, weighing 13,969 marcs 25 oz., the net value of which is \$116,297 7½; the costs are not yet ascertained, but will be about \$106,000 and the total profit in the month only about \$10,000; there are many causes which have caused this extraordinary depreciation. The present extraction of ores from Gallega still continue large; the quality has much deteriorated, and as you will have observed, the by far greater part consist of ordinarios and tierras, the ley of the former being now reduced to six marcs, and the average of the latter to five marcs per monton; the expenses of extracting these poor ores are the same as on those of a higher class, and at the present time that quicksilver and all other materials are increased in value, the costs are proportionally increased without a corresponding return; there are, besides, other causes, which have had only a temporary effect, and will cease as soon as the bad weather, which has lately been so prevalent, and prevented us for several days from doing any work in the haciendas, ceases. But still while the primary cause exists, the profit must be most considerably diminished, notwithstanding every economy that can be put in practice.

*Veta Grande, Dec. 5.*—Notwithstanding the disadvantages under which we laboured on account of the weather during the last month, our extraction amounted to 12,703 cargass. It is to be lamented that the first, and superior classes, are not to be discovered in great abundance.

The new workings commenced during the month of November were, rise No. 1, at Buen Suceso, which was continued in the same point in which it was suspended during the middle of the present year, in consequence of the heat. Rise No. 4 of do., was begun in the high end No. 1, twenty-six varas to the east of the former—both for the purpose of inspecting the ground.

Clearing in Taylor's shaft when the end No. 1 at Taylor to the east was in operation; the shaft served for the purpose of throwing down the attle to the level at San Andres; twenty varas above the level our progress was obstructed by some timbering being thrown athwart, and the attle blocked up in such a manner as effectually to arrest our further operations here; and it only remains for us again to clear from San Martin, in order to continue the shaft—a work which will occupy about a month to accomplish.

Our workings on ores (carried on by tributaries), were principally in the reserve above San Martin, in that of No. 3 of Esperanza, in San Francisco, and the bottom, No. 2, of La Cruz. In the do. No. 1 of La Cruz, there remains little ore, and I may with a degree of certainty add, that that working is exhausted to the west of this working. I hope in the course of time to extract a reasonable portion of ore, as the vein of San Diego in the high end to the east has a good appearance. In the same manner as the above, there remains a quantity of ores in the bottom No. 3 of Buen Suceso—the two tutworks in operation there. Lower end at Buen Suceso, and winze of Esperanza, continue in good ores, and the vein presents a reasonable width. In the winze of Remedios, ores are also beginning to appear, and it would not be inexpedient to drive two ends there, both to the east and west, and explore that virgin ground. During December, the extraction of carga will be from the same point as in the preceding month.

*Macias.*—During the second week of the month, I again commenced sinking the shaft; the vein that we pursue, is more than two varas wide, and very favourable for working—being composed of quartz, full of bolzas of green stone, something decomposed, and thin strings of silver ore.

We also occupied two weeks in the end at San Pedro; but observing the vein to come from bad to worse, it was not continued.

The end at San Francisco, also, does not improve; but I look upon this working as one of the principal ones of the mine, and being a point where we may reasonably expect to hear something of consequence, I do not wish to abandon it.

The winze of Santa Barbara I suspended at the end of the month, in consequence of its poverty and the bad appearance the vein presents. The ores that may be discovered in it for the future, will be extracted by miners on regular wages, parados de obra.

The bottoms of San Francisco are not yet at fork, notwithstanding the water continues lowering. It is my idea to sink the shaft to thirty varas below Santa Barbara, and then drive an end towards those bottoms which continued still in ore ground.

*Tiro General and Concepcion.*—The eight whims of Tiro Gral were all in operation, and we have at last reached the Ventanilla cross-cut of Santa

Rosa, but as the two ends and the cross-cut are full of water, it will require some delay; which done, that trial will be resumed.

*Almaden.*—The unpropitious weather has prevented our getting forward with the overground works, but in the shaft we have made some progress. There are now thirty varas repaired, and as soon as the malacate is ready, greater exertions will be made in clearing and cutting away the sides of the shaft. It is a provoking circumstance that the people who formerly worked this mine should have formed so narrow a shaft; for instance, where we are at present clearing, it is not even one and a quarter vara square, and it is of course, found necessary to enlarge it, and continue clearing at the same time, as so small a shaft is not of the smallest possible service; and should we not arrange it now, it would occasion far more loss of time, added to greater expense, at a future day. In all, the expenses of the mine of Almaden amounted to \$1522 6.

#### UNITED MEXICAN MINING ASSOCIATION.

*Guanajuato, Dec. 9.*—Mine of Rayas.—I am happy to say that a visible improvement has taken place in the important workings of the Rayas, and that not only larger quantity of ores is being extracted from the mine, but also of a better quality than for some weeks past. On the other hand, there is a slight falling off in San Cayetano, the bunch of rich ore in the mine pit having altogether disappeared, and now producing only a small quantity. The total weekly produce of this mine has been comparatively small (though more than sufficient to cover the outlay in every respect), owing to some very unusually severe weather, and the usual emigration of the working classes to the annual fair of San Juan de Los Lagos, which will be followed by the Christmas holidays, so that the half of this month may be considered as lost. The whole reduction power at Barrera will be employed from to-morrow on the Rayas ores, which will in a few weeks give us a proportionally greater quantity of silver, and if the mine continue in its present state, the surplus over expenses will not be less than \$2000 to \$2500 per week.

*Finances.*—I beg to congratulate the court on the extinction of all loans, and debts of a permanent character in this country, and leaving, as respects loans, the 5000l. supplied by the court for certain purposes, which amount will also be reduced in a very short time. The accompanying Rayas statement of outlay and receipts, is also a subject of congratulation, inasmuch as it shows an increase of \$23,000 on the receipts and assets, as compared with the statement of the preceding month.

*Nov. 14.*—Statement shewing the outlay and receipts in respect of a Mine of Rayas, from the 1st Feb., 1836, to the week ending the 12th Nov. 1836; and the value of the ores on hand:—

Amount of memories of the mine	\$342,358 4 7
ditto ditto San Matias	34,436 4 3
Total receipts during the same period	\$376,795 1 1

Value of ores at the haciendas belonging to the mine.—San Matias (hacienda), \$46,994; Barrera (hacienda), \$49,444; Rayas (mine), \$8345

Profit . . . \$87,986 2

*Dec. 9.*—Statement shewing the outlay and receipts, in respect of the mine of Rayas, from the 1st Feb. to the week ending the 3d Dec., 1836; and the value of ores on hand:—

Amount of memories of the mine	\$370,316 3 4
ditto ditto San Matias	34,796 5 4
Total receipts during the same period	\$405,113 1 1

Value of ores at the haciendas belonging to the mine.—San Matias (hacienda), \$48,078; Barrera (ditto), 39,752; Rayas (mine), \$11,390

Profit . . . \$109,710 2

*La Purisima.*—Santa Victoria, Dec. 8.—A very small portion of common ore has been met with in the pit of Senor de Rayas, but within the last few days some threads of good ore have been cut. The pits of Espirita Santo and Remedios continue producing a fair quantity of common ore, among which, there are some good threads and bunches of rich ore, more particularly in the former. In the end of Remedios, ores similar to those of the pit of Porfirio, are not quite so rich a quality as they were formerly, but continue pretty abundant; and an end to the south-east contains a fine bunch of ore, of about a quarter of a vara in breadth, running through the body of common ore. In the end of Santa Victoria, a pit (San Rafael) has been opened, and has come down upon the end of San Porfirio in the same class of good ore, whilst at the same time the body of ore that runs into the low part of this pit of San Rafael is yielding a small quantity of very fair ore.

The contraciello of Espirita Santo is producing ores of a good quality, though in no great quantity, in three points, viz., two ends, and the roof. The point bordering upon the late communication with Mellado, goes on improving, in proportion as the cross-cut advances; no formal body of ore has been cut, but the bunches are of good quality.

Thirty-eight pair of barmen are employed by day, and thirty-four by night. The produce of ore, in the rough state in the last two weeks, has been 308 cargass, of which there have been picked 500 cargass of azogues, of about twenty marcs per monton, sixty-four cargass of tierras de labor, of about six marcs per monton.

A cross-cut (San Ygnacio) from the Abra, has been commenced at a distance of twenty-seven varas from the divisional line with Mellado. The object of this working is to examine the middle body of the lode, at a part of the mine in which it is altogether unknown and untouched; and consequently, there is solid ground to work upon in all directions, in the event of the lode turning out productive. The work was begun last week, 1.39 varas was driven at the rate of \$80 per vara. According to measurement, by driving eight or ten varas, the middle body ought to be well cut into.

*San Cayetano.*—Pit of La Luz.—Very little variation is observed in the working; the band of good ore runs across it accompanied by the common ore.

*2nd Pit of Jesus.*—The fine bunch of rich ore mentioned in the report of the 24th ult., as existing in the centre of this working, has been lost sight of entirely; that on the south-east side of the pit has broken up considerably, and the working now contains a large quantity of common ore, together with some small bunches of good ore. The end to the north-west is pretty abundant in common ore, amongst which, rich bunches occasionally appear; that to the south-east did not prove sufficiently productive to be continued.

The 3d and 4th pits of Jesus are advancing on common ore; a slight improvement has been observed in the former during the past week.

*San Feliciano.*—A pit has been opened, and is advancing on two distinct classes of ores, which, although not of a very superior quality, are rather abundant, as nearly the whole working is covered with them.

Thirty-four pair of barmen are employed in San Cayetano by day, and twenty-eight by night.

Four pair of barmen have been employed in San Pio, and some bunches of rich ore are met with amongst the common ores. There is still a scarcity of hands; and, therefore, this point sometimes remains untouched.

The produce of ore in the rough state from San Cayetano and San Pio, in the last two weeks, has been 2500 cargass, which have yielded, when picked, 426 cargass of azogues, of about twelve marcs per monton, and fifteen cargass of tierras Mortero, of about eight marcs per monton—five cargass of ore, worth about \$200 per carga, have been picked from the rich bunch that appeared in the 2nd pit; it is proposed to concentrate this ore, and smelt the polvillo.

*San Miguel.*—In the cross-cut, a body of quartz, entering with its natural inclination, is being cut into, but without any indication of ores. The end to the south-east contains several bunches of the most ordinary class of ore. There have been two sales of ores extracted by the buscones, amounting to \$7138 1, of which one half, \$3569 0 4, belongs to the mine.

Ores sent to the Haciendas.—San Matias, 520 cargass; Barrera, 832½ total, 1352½.

The ores on hand are calculated at 1221 cargass in a picked state, and 127½ cargass in an unpicked state; making together 2496 cargass.

#### ANGLO-MEXICAN MINING ASSOCIATION.

*Guan, Oct. 28.*—The following sales have taken place at the company's mines since my letter of the 21st instant:—22nd, Tepayac, buscones' ore, \$2555—mine share, \$127 6 6; and on hacienda account, \$26; San Lorenzo, buscones' share, average cargass sold for \$66 3; Esperanza, do. ore, \$72—mine share, \$36; 25th, Sirena, buscones' ore, \$2277 2—do., \$1138 5; and on hacienda account, \$1130; Penafiel, buscones' ore, \$183 mine share, \$9 1 6. No silver has been received since my last.

The extraction of the present week from Tepayac I expect will be more than the last, both of buscones and for hacienda account, but I do not expect it will yet cover the memoria of Esperanza. I have nothing new to communicate. It will be seen that the Sirena sale on Tuesday last exceeded \$3400, and left a very handsome profit on the week's work: our next sale will be Monday (Tuesday being a holiday), thus we shall lose one day; but I still hope not to fall far short of last week's results: the mine continues in a very encouraging state. Penafiel is suspended. More cargo is also expected this week from the campos in San Lorenzo than we have lately raised. The sinking of the shaft of this mine will now be commenced in a very few days, and carried on with all the activity possible. The adit level of San Nicolas, in the contiguous mine of Ascencion, is going on steadily, and will, I hope, in two or three weeks, open upon the lode in a favourable part, as at



in providing for the extra expenditure about to be incurred in these works. The drainage in Valencia goes on uninterruptedly; the fall of water in the late sales there, is now leaving a profit. Indeed, most of the mines in this neighbourhood seem to have rallied lately.

Nov. 4.—The following sales have taken place at the company's mines since my last of the 28th ult. :—

Oct. 28.—San Lorenzo, buscones' share, average twenty cargans, sold for \$195 4.

Oct. 29.—Esperanza do. ore, \$29; mine share, 14 l 6. Tepeyac, do., \$171 8; mine share, \$35 5; and on hacienda account, \$14.

Oct. 31.—Sirena, buscones' ore, \$2071 4; mine share, \$1035 6; and on hacienda account, \$1283. No silver has been received since my last.

My expectations (with regard to last week's produce from Tepeyac) was disappointed. With regard to Sirena, on the contrary, my hopes were more than realised, as the mine share of the sale was \$2318 6, against a memorandum of \$1202 5 6; and from the state of the mine, I expect even better results than this on the next sale day. Penafiel is suspended, and so I fully expect that this will be after this week. San Lorenzo and Ascension, however, Esperanza will be after this week. San Lorenzo and Ascension, however, Esperanza will be after this week.

I have received two dividends from the owners of Mellado since my last, amounting together to \$8533 2 4.

JOHN STANLEY.

Nov. 12.—The mine of Penafiel has been suspended since the 18th ult. It is just possible that the works now prosecuting in the adjoining mine of Sirena may direct to some favourable point in this mine where to operations with some prospect of advantage; but if not, we shall in all probability determine to abandon it as soon as Mr. Hurry returns.

Work.—Captain Morcom's report will accompany these despatches and, to which I beg reference.

San Lorenzo.—Everything is now ready for sinking the shaft, except fixing the platform at a convenient distance from the bottom, a moveable door or platform, so that the drainage and raising of ores from the present planes of the mine may go on as usual, without interfering with the workmen in the vija of the shaft, who, being thus protected by the platform, will work with greater security, and as we hope, at a cheaper rate. The campos continue to yield a few cargans of good ore weekly.

Ascension.—The adit level of San Nicolas, is the work at present carrying on in this mine to prove the lode within the limits of its pertinencias; the lode being in soft and yielding ground, the level is being driven in the solid rocks, at a few varas distant, but parallel with it; and from thence short cross-cuts will be opened to the lode at intervals. The point last examined in this way, a few weeks ago, was found poor, although it produced one stone, which gave, by assay, 1174 inches per monton.

San Nicolas de Tiquitupa.—Beside the two mines in the monte of San Nicolas already mentioned, the company has a kind of dormant contract for another, called as above, which adjoins San Lorenzo, and is on the cuerpo of the same lode. At present, this mine has only been registered, and no possession has not been taken thereof by the denouncers, who are the parties to the contract; but this can be done at any time when the company desires it, and then the contract comes into effect, by which the company engages to find the necessary funds for working the mine, and becomes possessed of nineteen out of twenty-four bars. Now, there is a prospect in San Lorenzo, called St. Gertrude's which runs in the direction of this mine, and is at this moment very close upon its boundary. This work is admirably calculated for proving and working the mine, availing of the monte of San Lorenzo for extracting the ore; and as we are now about to extend our researches to this mine by continuing the frente already opened, which being itself on the lode, although at present not in good order, may, as the work advances, become productive, and pay the cost. I, however, reserve this point until Mr. Hurry's return, and shall, in the meantime, urge on the sinking of the San Lorenzo shaft, and the driving of the adit level in Ascension.

Sirena.—This mine has been gradually doing better and better, both in prospect and actual returns, for some weeks past, as you will perceive by the following comparison of the memorias with the mine share of the weekly returns:—

	Memoria \$1101 4 6	Produce \$990 0 4
Oct. 1	do. 995 4 2	do. 1379 7 4
11	do. 929 3 4	do. 1527 6 0
21	do. 1566 5 6	do. 2268 5 0
31	do. 1202 5 6	do. 2318 6 0
Nov. 1	do. 1142 4 5	do. 2839 0 4

The labour of Padre Eterno (on hacienda account) continues to improve, and the extraction of ore last week from this work alone, sold, on Tuesday for nearly \$1500. A few days ago, we began a second frente, about five varas below this, and hope to reach the lode in about six weeks.

Unfortunately find it in the same state as it is at present in Padre Eterno, no reason why the present produce of the mine should not be nearly doubled, and with a very moderate addition to the amount of the memoria.

The bottom of the old workings of Los Reyes has not yet been reached, and we are still leaving the ore which is found in the sides, to break down by and-by. The carga extracted from other parts of the mine by the buscones, is very fair, both in quality and quantity; and upon the whole, the mine is in a very encouraging state, and I trust will not disappoint us.

Esperanza.—I wish as much could be said of this mine, which we are working on from week to week under the expectation that every one will be the last. The sale last week was rather better, and ore of a better quality, and for this reason—the buscones were allowed to continue their campos. There will be another sale to day, the result of which I shall know before these despatches.

Tepeyac.—The weekly extraction from this mine continues very small, and buscones but little help towards meeting the expenditure. The frente of San Lorenzo is just now driving in softer ground than before, and the width of the working has lately been reduced from three and a half to two and a half varas, so as to advance more rapidly. The clearing of the pozo of San Juan has been resumed, being now better ventilated. The result of to-day's sale should also be enabled to communicate at the close of my letter.

Valenciana Drainage.—This heavy and expensive work goes on very slowly, and with somewhat better effect than formerly. The following are the weekly results since those advertised in my last general letter:—In the ending 15th October, the water fell ten inches; 22d, fifteen inches; 28d, eighteen inches; 2d November, twenty inches. When the water shall have fallen from three to four varas below its present level, it is expected the pozo of Soledad will be left dry, and then, I hope, we may begin to count some weekly instead of inches. Haciendas are at full work without any state of novelty.

Nov. 14.—There was no sale at Esperanza on Saturday, as expected, in consequence of the want of faenores to carry the ore in time from the campos to the shaft. The sale at Tepeyac rather exceeded that of the former week.

JOHN STANLEY.

Guamuxato, Dec. 9.—Abandoned Mines.—The mine of La Luz is now having some profit again, and on the 5th inst. I was paid a further dividend in payment of the avio of that portion of the mine which the company worked separately, under the name of San Bernabe, amounting to \$140 68. Valencia has lately been leaving profits also, and I hope by the end of the year will have paid off the deficiencies which resulted during the earlier part of the year. Should this be the case, and the mine continue in its present state, we may soon expect to receive some assistance from it towards the heavy expenditure attendant on the drainage.

Work.—San Lorenzo and Ascension.—The sinking of the shaft in the buscones continue to raise about the usual quantity of ore from the campos in San Lorenzo.

Sirena.—Since the advices contained in my letter of 25th ult., the weekly returns have been as follows:—Week ending 19th ult., memoria, \$1870 7 7; \$1167 1 1—total \$3038 1. Mine share of sale of produce of the two mines was \$4932 0 4. 3rd inst., \$1498 1 5; mine share, \$2303.

The mine continues in the same steady state of improvement, but some off may be expected in the weekly surpluses for the next few weeks, in consequence of the numerous holidays which are approaching. The old works of the mines have been quite cleared out, and the bottom has been found in ore, although not so rich as that which is found in the labores of Padre Eterno, will, nevertheless, assist our weekly sales. This part of the mine is in mazco, or solid ground, and will, I trust, give us profitable employment for some time to come.

Tepeyac.—The extraction of ore by the buscones has somewhat increased since the last week or two, but no discovery has yet been made either in the monte of San José or the pozos.

Valenciana Drainage.—In consequence of the stoppage of the engine, as advised, the water rose during the week ending 29th ult., nine inches; during the last week, ending the 3rd inst., it fell seven seven-tenths inches. Engine repairs have been effectually completed. A further supply of oil has also been lately received for the malacates; and I would fain hope the fall of water would be more considerable and uniform than it has been.

9.—Since my letter of 2nd inst., the following sales have taken place at the company's mines:—3rd inst., Tepeyac sale, buscones' ores, \$3531 6; 6th, Sirena, sale of buscones' ores, \$1695 4—mine share, \$91 6; 6th, Sirena, sale of buscones' ores, \$1695 4—mine share, \$91 6; ditto on hacienda account, \$1455 2. One parcel of silver has been received to-day, viz., 470 mcs. 1 oz., produce of 43 montons of ore.

Losses sustained in the year 1833, during the occupation of Guanaco by the troops under General Arista.—In my letter of May 22, I advised that the losses of the mining company had been admitted by

They were:—mining company, \$12,236; mint company, \$12,186. I have now the pleasure to acquaint you, that \$811 2 have been received in part payment of the mining company's claim, and \$600 in part payment of that of the mint company. The remainder, I hope, will also be recovered in due time. The United Company have received upwards of \$35,000, which is not quite the half of their claim. We are much indebted to Mr. Pakenham for the success which has attended these claims, at one time almost valueless in the opinion of most parties but now in a fair train to be fully satisfied.

JOHN STANLEY.

Nov. 14 to Dec. 9.—Sirena Mine.—The prospect of this mine continues tolerably good, as it will be observed from the weekly reports. We have resumed working the malacates by night, with the view to sink the water as deep as the canons of Noche Buena; that speculation may be carried on in the cuerpo alto at that level.

Tepeyac Mine.—The prospects of this mine in general are poor. It will be observed from the weekly reports, that the campos do not improve, neither do the works that are carried on as speculation.

Esperanza Mine.—The working of this mine has been suspended since the last report; reasons were stated in that report for doing so.

San Lorenzo Mine.—We have commenced to sink the shaft from the level of San Lorenzo, with a view to deepen it eighty varas, that a cross-cut may reach from it under the bottoms of the mine. The cuerpo alto and medio in this and San Augustina mine are generally worked out as far as the water has been drained, which is a symptom that the mine was formerly rich. It is reported that this and San Augustina mines were left in good ores, which the shaft will command. It will be seen from the weekly reports, that there is nothing particularly new discovered in the campos.

Ascension Mine.—The working of the adit level of San Nicolas has been carried on regularly. It is now arrived at the point where we intend to make a cross-cut through the three cuerpos, where it is expected that some good ores will be found.

JOHN MORCOM.

#### BRAZILIAN MINING COMPANY.

Cata Branca, Dec. 4.—Conformably with what I stated on the 29th ultimo, Mr. Cox started from this on the 1st instant, taking with him nine parcels of gold in dust, and amalgam, weighing 292 mcs. 1 oz. 1 gr. Portuguese, or 179 lbs. 8 oz. 18 dwts. 2 grs. troy, being exclusive of the duty of \$1., the produce from the 29th of May, to the 26th ultimo, inclusive.

In the mine a new range of stopes has been commenced, and from the improved produce of the stamps, the ground appears as rich as before. In other respects nothing whatever of novelty has occurred all proceeding as usual.

Dec. 9.—I am truly happy to, at length, have it in my power to inform you, that the new stamps are complete, and the whole sixteen heads will tomorrow be upon duty. I have only to add, all goes forward steadily.

EDWARD HARDING.

Gold return from 27th November to 3d December, exclusive of the produce of five heads reserved for amalgamation, 8 lbs. 3 ozs. 9 dwts. 20 grs.

Conceicao, Nov. 16.—Since Captain Scott's last letter, all has gone on as well as the impediments which have been met with would admit of, and which, from the captain's report herewith forwarded, will convince you have not been few. It is with much regret I tell you, that the deep level has as yet proved a most tedious and dangerous work, and I fear will continue so to the end. We last week holed to the old air shaft, and managed to crawl some nine fathoms beyond it. Every part is most completely crushed, and will require time and great care to get through; indeed, but for the hope of finding the hard ground, which I am positively assured by Major Lagé is before us, I would at once sink, and proceed as stated in mine of 7th of October. I fear we cannot positively reckon on getting in less than seven months more.

On my return here from Cata Branca, on the 7th instant, I minutely examined the upper level, in company with Major Lagé and one of the ablest of the old miners, and being convinced that both beds had been passed, decided on coming back some four fathoms, and cross-cutting, so reach the red ore, and which I hope to do in a few days. We are now in the Camada Preta, which has, I conceive, a most promising appearance. The levels occupying all our force, the experimental shafts have been discontinued for the present.

Dec. 1.—I beg leave to hand you captain's report for November. Our mining operations still continue tedious. In the deep level the hard leary of several palms has not yet been reached; all has been found crushed in the worst possible manner, until we reached the hard bar of ground alluded to: we must persevere, and if that ground be found standing, of which there can be no doubt, our progress after will be more rapid. This month will surely throw some light upon it.

In the upper level the black and red formations have again been cut through, but no whole ground found. I am not much disappointed at this, for it was hardly to be expected, after a lapse of so many years, that the exact spot could have been remembered so accurately as to have been hit upon at once. The flat wall of the black formations being sufficiently firm, we have risen some four and a half fathoms under it, and have now commenced cutting through to prove the beds at that height. Should nothing worth while be found, it is my intention to drive right and left upon the run of the veins; however, it is very clear, that ridged as the Camada vein has been above the deep level, that bed must not be looked to, in coming to a conclusion upon the value of the mine. The Camada Preta is said to be unworked, and must, therefore, be proved; but the touchstone is the deep level, and to that I look forward with great anxiety, relying upon its being pushed to the utmost.

There is much to get through with, and I sincerely hope that the miners coming forward are not far distant; the strength of our small party here has been considerably reduced by sickness, having seldom had less than from three to four laid up.

W. COTESWORTH.

#### Mining Captain's Report.

Nov. 1.—The following is a statement of work done during the past month:—No. 2, Shaft sunk four fathoms; No. 3, ditto five fathoms; No. 6, Deep level cleared thirteen fathoms four feet; No. 7, Large's ditto, eleven fathoms.

No. 2 was discontinued on the 18th ultimo, in consequence of the water coming too quick. No. 6 still continues advancing so slowly from its very crushed state, and the frequent recurrence of bad air from the old workings. No. 7 has not proceeded so fast as either I expected or wished; but after driving three fathoms we cut the old workings, which have continued with us nearly as far as we have gone, and the old timber, attle, and bad air from these old workings have been impediments. We have now, to all appearance, reached the wall of the black formation.

Dec. 1.—The following is a statement of the work done during the past month:—No. 6, deep level cleared seventeen fathoms; No. 7, Lagé's do. driven nine fathoms; No. 8 shaft sunk four do.

No. 3 was discontinued on the 2d ultimo, in consequence of the water running in very fast. No. 6 continues in a very crushed state. No. 7 discontinued driving in the end, and went back six fathoms, and drove four fathoms to the left hand, and then broke ground at two fathoms from the former end on the right, and I have risen three fathoms one foot. No. 8, an air shaft from No. 7, was discontinued on the 10th ultimo, and the men applied to No. 6.

R. SPOTT. W. WILLIAMS.

Cata Branca, Dec. 14.—I have to announce to you my return to this establishment, where, I am happy to say, I found all well. You will be glad to hear that the sixteen heads have at length commenced work. You can but have attributed the wearisome time they have been in hand to want of exertion; or, if you have not, you might apparently justly have done so: for my own part, I never was more heartily tired of a job in my life, and I do trust, never again to encounter in any similar undertaking, half the unlooked for and untoward accidents and mishaps that have attended this. I will conclude the subject by observing, that you may justly boast having the best stamping-mills in this country, and hope that they may now make amends for the anxiety they have caused.

The amalgamators were stopped on Monday, the 12th, having run twenty-eight days—minus three hours. I hope in my next to state the result.

Gold return, from 4th to 10th of December, exclusive of what has been reserved for amalgamation, 8 lbs. 9 ozs. 11 dwts. 1 gr.

W. COTESWORTH.

#### IMPERIAL BRAZILIAN MINING COMPANY.

Gongo Soco, Dec. 4.—Although, as I stated in my letter of the 14th of July, I do not touch upon mining subjects on the intermediate post days of the 4th, 14th, and 24th of each month, I cannot refrain from calling your attention to the produce of the 30th Nov., as exemplifying in a remarkable degree the suddenness of the fluctuations and alterations in such formations as that of the Gongo mine, where, as I have observed in some of my former communications, a blow of the pick may open the way from poverty to riches.

The concluding part of paragraph four of my reports of the 29th Nov., gave but a discouraging account of the state of the mine, and the probable total produce of the month. The next day, Capt. Collins visited the mine in the early part of the morning, and when he left the twenty-seven fathom level at about 10 o'clock, there was no appearance of gold at the very spot where, in less than an hour after, Captain Bray was breaking ground, and taking out stuff from a vein which, according to his description, had, for a few minutes, as favourable an appearance as the rich vein in February last. This vein, however, soon died away—not altogether, as we are still pursuing it, but it became and continues narrow, after having yielded, in two boxes, the produce of the 30th Nov.

The most favourable feature connected with this vein is, that it is not an arch left in old ground, but exists in whole ground hitherto unworked, and of which there are many fathoms to break.

G. V. DUVAL.

Dec. 9.—In calling your attention to the several documents which accompany this letter, I am happy to be able to refer you to the improved gold

increased quantity of gold which it presents, as in the locality from which the gold has been extracted.

All the stuff now brought to the washing-house is, without exception, from new ground, and the improvement in the stamps shows that that ground is, if not very rich, at any rate good and promising, independently of the vein which we are pursuing in different directions, and which may at any moment bring us into handsome produce. We are at this moment full of hope and expectation, particularly from the western ground, in which a sudden and material improvement has taken place. Some very rich stuff was broken from the back of the fourteen fathom level at Duval's shaft yesterday, during the night, which has of late been a very unusual occurrence at Gongo, as we do not work the veins after 3 o'clock in the afternoon. This stuff was, however, unexpectedly met with in effecting a rise for air between the back of the fourteen, and the working of the tributaries above; and Captain Collins, who was night captain, immediately broke and took charge of the stuff until this morning, when I saw it in the wash-house, in the hands of Mr. Bayley, who expected that about 30 lbs. of jacotings, which was the quantity broken, would yield about 1 lb. of gold.

The vein continuing in sight in the spot where this stuff was broken, and having a very kindly appearance, more gold could be immediately extracted, were it not necessary that the rise to which I have alluded to should be first holed, as the air is so bad as not to allow a candle to burn; and, therefore, most unfit for men to work in. I do not thus expect anything more from the west to-day, but have every reason to hope that we shall get some good boxes from that quarter during this month, and we have in addition every reason to indulge the expectation of produce at any moment, from our new ground in the twenty-seven fathom level, and from the new north vein in the twenty-one, to which I have alluded in my late communications, and which gave us some gold in October. The concluding paragraph in the mining captain's monthly report, dated December 1, alludes to the vein at the back of the forty-eight fathom level of which I spoke in my letter 29th November, and although they do not venture in a professional report, to enter the field of speculation as I have done in my letter to which I am referring, I find in the minutes of our mining conferences, that in discussing the question they almost unanimously concur in the opinion, or rather surmise, I have expressed as the probable course of that vein in the forty-eight, and the decrease in size of the rock, as it goes down in the forty-eight. The wheel at Vesey's shaft which has been christened the "Louisa" wheel, and the works at Vesey's shaft connected therewith, do not proceed as fast as I could wish, and the same observation applies to the Taboleiro stamps; both works, however, proceed with as much activity as our limited means in the mechanical department, and the unfavourable weather at this season of the year, will permit.

I forward herewith a statement from the captains, which I required them to furnish, to enable me to account to you for the delay which must unavoidably occur in the completion of the works in question, beyond the period we had fixed when they were first spoken of and commenced. For a mine like Gongo the number of blacksmiths and carpenters in the establishment, and principally the latter, is too small by three or four; and although some assistance may occasionally be derived from native carpenters, that assistance is very ineffectual for mining works, and it is afforded to the mine at the expense of the village department, where we have more works on hand and before us than I have any expectation to accomplish with any thing like the speed the urgency of every case calls for. I am afraid it will also be found, as we extend our works in depth, and further in the western ground in length, that the number of miners will also be found scarcely adequate to the task, more particularly as we may expect that some of our present hands will leave us at the expiration of their present engagements, in the early part of next year.

I would therefore recommend to your consideration, as a general measure, whether it would not be advisable, when favourable opportunities offer, to engage the services of good miners, and who are at the same time orderly and well behaved men; that such opportunities should be availed of, to replenish, and increase our mining establishment. This measure would, I believe, be found one of economy in the end, notwithstanding the increase of expenditure it would occasion at first. Either Gongo is still rich and will pay for working, though perhaps not so handsomely as in former periods, or it is poor as at present, or perhaps poorer, and will not, therefore, pay costs; and it appears to me that the truth, in either case, cannot be too quickly ascertained. Before closing this paragraph and the subject of the mine, I beg leave to place before you, with this letter, a copy of the plan made by Mr. F. X. Hocheder, of the stamping-mill we are now erecting at Taboleiro: the construction of the mill itself does not differ materially from our other stamping-mills, except in the construction of the box behind, to receive the ore, and from which the stamps will be fed without the necessity of an attendant for that purpose, and in more regular and equal proportions than when they are dependent on the care and watchfulness of a man placed there day and night, to introduce the ore under the stamp-heads.

The great improvement which I expect Mr. Hocheder's plan will produce is in the strakes, and in the prevention of the escape of gold with the stream that leaves the strakes, and which, in the case of the Taboleiro mills, must escape altogether, and flow away with the Socorro river, as I explained in paragraph five, of October 24.

It is to these two points that I wished particularly to direct and apply Mr. Hocheder's long experienced and acknowledged skill; and I am sanguine, that by the arrangement that he has devised of making the strakes in steps, a greater portion of gold will be arrested, and that any gold carried off the strakes will be arrested, and held in the bed of mercury, upon which the water and ore flowing from the end of the strakes will fall, as shown on the plan under figure 5.

Mr. Hocheder is, unfortunately, desirous of returning to Europe as soon as possible to arrange some family affairs, but he has consented to oblige me by remaining in Congo until he has put his plans at the Taboleiro into successful operation, and until he has seen whether similar or other improvements can be made with regard to our other stamping-mills.

Since Mr. Hocheder has had the inspection of the stamping department, he has kept a diary of all circumstances connected with that department, which he delivers in monthly.

The diary shows, amongst others, the quantity of jacotings stamped and crushed; and hence, by comparison with the gold produced during the same period, the richness of the jacotings, or more correctly speaking, the proportion of gold we are enabled to extract from a given quantity.

Thus, in the month of November, 3894 tons of jacotings were reduced in 3249 hours, and produced 431b. 2 ozs. 10 dwts. 9 grs. of gold, giving for each ton sixty-four grains of gold.

To render this statement complete, we ought to have ascertained by fire assays the exact contents in gold of a ton of the jacotings, in order to ascertain the loss we suffer by the inefficiency of our present means of reduction, but these assays could not be made for want of the requisite means and materials. I am, however, in hopes that Mr. Hocheder will be able to add to his stamps diary for December the result of some assays by fire, which will render it complete.

G. V. DUVAL.

#### Workings from the 29th Nov. to the 8th Dec.

	Stamps.	lbs. oz. dwt. grs.	lbs. oz. dwt. grs.
Nov. 29	0 11 19 10	0 11 19 10	
" 30	1 2 18 6	14 0 10 0	
Dec. 1	0 6 17 4	1 0 12 6	
" 2	0 2 17 4	0 4 11 18	
" 3	2 2 3 5	2 6 1 0	
" 5	2 3 6 12	3 3 17 10	
" 6	1 10 2 6	1 10 2 6	
" 7	4 6 7 5	5 6 3 17	
" 8	0 6 0 18	1 2 3 6	
Nine days	14 4 11 22	30 9 1 1	
From 1st July to 8th Dec.		270 0 5 1	

Rio de Janeiro, Dec. 19.—We have the honour to acknowledge the receipt of your despatches of the 28th Sept. and 4th Oct., the first signed by your secretary, relating to sundries shipped in the *Manuel*, Captain Morgan, which vessel is discharging, and your shipment shall be sent forward with the least possible delay. We now enclose your chief commissioner's despatches of the 4th and 9th inst.

NAYLOR, BROTHERS, and Co.

#### MINAS GERAES MINING COMPANY.

Morro das Almas, Dec. 7.—Mine.—On this head I have to communicate that we have furnished, during the month of November, the improvements on the main level, and have now laid in a new tramroad on about two-thirds of its length; the improvements in removing the stuff through the level have now ceased, and we shall be enabled to proceed with considerably more speed.

The side level towards the rich workings has been carried on without interruption, with the exception of having been partly hindered from clearing the stuff.

The ground in this end has been rather unfavourable for driving with speed during the last month; at present it has been materially changed for the better, and we shall now be able to get on with more expedition: we have driven about nine fathoms and a half.

In order to finish this side level in the shortest time possible, we have commenced driving in an opposite direction; that is, from the old workings towards the side level, to meet the former end: here we have opened three fathoms, and have therefore diminished the whole distance of forty-three fathoms to about thirty and a half fathoms.

This side level will come in from six to seven fathoms above the bottom of the rich workings; and so soon as this is completed, we shall commence pumping the water by manual labour until the water engine is erected.



**Ricardo Mine.**—Here we have cut two shoots in the clay slate on the surface, and have opened a road for the communication with a tramroad: the latter will be laid down in the course of this week, and in the next, we intend to commence stamping the ore from the mine.

**Surface Works.**—These have chiefly consisted in the opening and repairing of the roads for the extraction and carrying of timber from the woods, and the squaring of a large plan for a new adit and stamps, the erection of mud houses for the men, and repairing of the stamps. A rego (water test) has been commenced, opening for the new wheel, and the iron work for the latter is in preparation at the foundry in our neighbourhood.

Our working force during the month of November has been as follows:—European: three blacksmiths, five carpenters, six miners, one boy. Natives: three carpenters, two masons, four woodsmen, ten labourers, at an average. Slaves: thirty-one males and nineteen females; from which to be deducted two children, and about ten sick. The number of native free labourers, woodsmen, &c., averages at present only from eight to ten.

J. C. HOCHREDER.

#### MEXICAN MINING COMPANY.

**Dec. 10.**—I shall content myself with acquainting you, that the mine Senor San José, which I advised the having contracted in my last, has not got a cinto of very fine ore in the upper clay, and exactly of the same description as that in the same part of the Corazon de Jesus lode, which proves the identity of it. There is no material difference in the other mines, except that the ore in Soledad and Jesus Maria seems to improve; the latter, however, is still driven as an abra. Mr. Niedman, after keeping me waiting for the promised report, sends me word, he cannot get it ready for this opportunity; therefore it will go with the duplicates. ELLIOTT TURNBULL.

#### CANDONGA MINING COMPANY.

**Gold Report.**—Total up to November 2, inclusive, 110 lbs. 3 ozs. 2 dwts.; up to December 2, 152 lbs. 10 ozs. 8 dwts. 18 grs.

**Candonga, Dec. 1.**—In the weekly report of the 12th ult. I stated, that in consequence of the late rain, the old road had become so bad that it was deemed absolutely necessary to commence making the new one, which our present force of blacks, with two pairs of Englishmen, together with their blacks, had rendered practicable. I have, therefore, nothing to report, excepting the bottoms and adits.

**Deep Adit.**—After cutting a plat at the bottom of the shaft, the men recommenced their proceedings here, and after drawing five fathoms, they met with a rock, where nothing could be effected without the help of powder, of which, not having a sufficient quantity at hand to carry on our operations in the bottoms, and also this work, it was thought advisable to discontinue the latter until the powder, which was ordered from Rio, should arrive. Now, knowing how far this hard ground might extend, and in order to avoid the probability of being obliged to discontinue our workings in the bottoms, we have commenced a shallow adit, which will come in at the thirty-seven fathom level, so that if we are prevented from bringing up the deep adit in the time expected, we shall still continue to work in the bottoms without interruptions. Twenty-two fathoms of this shallow adit have been driven by the men who were employed in the deep adit in the beginning of the month.

The powder having now arrived, the deep adit will be continued by one pair of men, and the shallow by the other two pairs, who have been employed on the road.

**Mina da Pedra Bottoms.**—The same number of hands having been employed here as in the last month, there is now, and has been through the month, room for all to work by day, as we have at present four different points of ore-ground to work on, instead of one, as in last month, from which I consider our returns for the month of November to be more cheering than they were for October, when all the gold was extracted from one spot only. J. DALLEY.

#### MOCAUBAS AND COCAES MINING COMPANY.

**Dec. 8.**—In driving north on the course of the lode at M'Donnell's ten fathom level, we have intersected another rising: it has given us some tolerably promising samples of gold, and it will be observed that the produce of the stamps has increased. We are still driving the end north to the lode, and are hourly expecting to cut other veins: this end is now in from the cross-cut about four fathoms: six fathoms more remain to be driven, according to the plan before we cut the Coxorinho vein, and in order to expedite this, as well as the rising on the vein last cut, we have been obliged to put a temporary stop to the rise on the first or upper lode: this rise is up from the back of the ten fathom level, between five and six fathoms, from the top of which we have driven a level south, as a cross-cut to the veins, for three fathoms in length; but, throughout the whole of this distance, the lode has been poor.

In driving Halfeld's fifty fathom level, we have not yet reached the veins; the lode still has a kindly appearance, but the samples taken from it are not rich. In the eastern end, at the shallow adit, the lode has been decreasing lately. At Mina de Morro we have not yet cut the lode in the cross-cut: the ground is still favourable. In the cross-cut at Conceição very little has been done, owing to having but one man employed there, and the ground requiring timbering.

Produce of M'Donnell's shaft, 2 marcs; Halfeld's do. 0 6 7 58; Bandedo, 0 2 3 9—3 1 2 66.

Some good samples were taken from the rasgao to-day, showing gold in the stones thereby proving that the veins extend to our present depth: this looks favourable. JOEL HITCHENS.

#### PENOLAS GOLD MINING ASSOCIATION.

**Oajaca, Nov. 30.**—I confirm my last letter to you of the 29th ultimo, of which enclosed I transmit you a copy, and acknowledge receipt of your favour of the 15th of September, with duplicate of the 23d of August, the original of which has not yet come to hand.

Herewith you will find the copies of rays and accounts, in company with a report from Mr. Quinn, to all which I beg most respectfully to call your attention. You will observe, that his operations during the past month have not been attended with better success than those of September and October, and if a change does not take place between now and the end of the year, there will be no other remedy than to give up. As mentioned in my last, I went out the following day to Penolas, but finding things in such an uncertain state, with nothing but hopes to look to, I have delayed writing longer than I should have done, with the expectation that something favourable might turn up; but I am sorry to say, that up to the present time our situation has not improved or changed for the better. This week I intend to ride out again, in order to determine on what plans it may be necessary to adopt. Guadalupe, as you already know, has been abandoned: in the Augustos no ores worth extracting are to be found; so that we are merely reduced to San Juan, and a vein in the neighbourhood of that pertenencia. Such a long course of disappointment and vexation is tiring out both Contreras and ourselves. I intend, notwithstanding, as already promised you, to persevere till the end of the year; if nothing better should then happen, I shall give him back his mine, ask for a six months' prorogation for yours from the Deputacion de Mineria, which will keep them from harm's reach during that period, in so far as preventing any one denouncing them; and I will pay a person to live in the hacienda, and take care of it, in order that the property may not go entirely to ruin, and that you may have a chance of disposing of it, in case such opportunity offered. I mention to you these arrangements and plans, to be put into practice if absolutely necessary, and I shall be glad to hear, in answer to this letter, if you would wish to continue the expense of keeping the hacienda in repair longer than the six months referred to. I notice your authority and instructions to me in case of need, to re-convey the mines back to their former owners, and this shall not be lost sight of when the time arrives for it, which will be after the expiration of the prorogation, in case it be asked for. Considering the satisfactory manner we went on with San Juan during the first four months, giving us well founded hopes and expectations for future improvements, it becomes doubly disagreeable to see it now in such a state of barrenness, without having scarcely produced ten carags of receivable ore for the past eight or ten weeks. You will see by Mr. Quinn's letter, that the mill has only been going with five or six heads, and of the small produce of his last desearne, he ought to get through most of the poor ores by the end of the year, when there will only remain about 120 carags from San Juan, which are estimated at about three adarmes. JOHN SADLER.

#### ST. JOHN DEL REY MINING COMPANY.

**Morro Velho, Dec. 3.**—The produce for November is 2666 oits. .04 grs., being a considerable rise in the produce as compared with the late months. This is to be attributed to the circumstance of the stamps having been kept more regularly at work since the opening of the Quebra Panella stamps, and nothing but pure lode stone stamped. It appears from the stamps diary, that the average number of heads working during the month was twenty-three only, so that the produce would have been 3000 oits. had the whole number done full duty. An evident improvement has taken place in the regularity of stamping this month; we will endeavour to keep it to it.

The Monthly Mining Report details fully the history of the works for November; I have nothing to add to it. The great united mines of the Bahar, and Quebra Panella, are coming into excellent order; they are now beginning to assume the appearance of a mine.

The Reduction Report and laboratory journal will be resumed next month; at present, the reduction department is being transferred from Mr. Hocheder's to Mr. Leay's operations. The arrastre is progressing, and the first attempt at concentration for the arrastre is commenced by Mr. Leay. From the little I have as yet seen of Mr. Leay, I am inclined to think that we are on the right way to learn the true available value of our ores.

to proper level, in succession with this slice, will yield, according to the specific gravity of the stone, as found on the 11th August last, 4499 tons, which will take near four months to break away, and then they will have to take away half the same quantity to bring the stopes into succession.

**Morro Velho, Dec. 1.**—Babu Shaft.—Nothing has been done this month towards deepening the shaft; the limited number of borers, together with the absence of a detailed account made on the 21st, we fixed, that to supply the twenty-seven stampheads at present erected with the lode stone from the Babu mine, and at the same time to continue sinking the shaft, 129 men are required, and we have only 100 available for these objects (including free labour). We have, therefore, for the present, to stop sinking the shaft, and place the twelve men destined for this work, on the stopes; these, together with the men (four) removed from the deep adit for the same reasons and purpose, will increase our force for the Babu to 116 men, leaving a deficiency of thirteen men.

Having now, since the completion of the pillar, a fine piece of ground for stopes in the western level, we can afford, without any serious detriment to the mine, to delay sinking till this ground is brought into a regular succession of stopes with the Babu mine, which will probably take us about three months. The lower lift of pumps was drawn to surface on the 12th, and the rings between the joints of the working barrel, alluded to in a former report, were removed, and the lift fixed in its place again; since then, it has given us no further trouble; and notwithstanding the heavy rain we have had lately, we have experienced little or inconvenience in the mine from water.

**Stopes.**—Our stopping force for the month has averaged ten men, day and night, and our stopping has been principally westward, and very little has been done to the Babu stopes further than putting them in good order. The communication under the pillar having been extended to the width of the lode, has given us a fine piece of ground westward for stopes, and to these we shall almost exclusively confine ourselves for the next two or three months, for the purpose, as I have elsewhere stated, of bringing it into regular order with the Babu stopes.

A new tackle in progress a little west of the present one, to assist in clearing this part of the mine; as also, a breastwork of hanging timber across the level, to protect the tackle from injury from the stones thrown from the holes while blasting, as very little ore will, for the next two or three months, be drawn by means of the whim.

**West Level** has been regularly continued—four men by day, and two by night, stationed there. Driven, three feet four inches; total length, 116 feet 4 inches.

**East Level.**—This month we have commenced regularly driving east from the Babu shaft, to keep possession of the Babu branch of ore. Two men, day and night, and three feet have been driven.

**Crickitt's Shaft.**—The tackle has been repaired, and the stone broken from the western level is now drawn up this shaft, from being obliged to remove the barrow road from the west level while stopping there.

**Vinagre Shaft.**—Three English miners and twelve negroes, in three corps, have been stationed there, and five feet one inch sunk; total depth, eighty-six feet five inches. The ground still continues hard, and no alteration for the better. We shall be delayed sinking for about a week, while lowering the cistern and converting the two lifts of pumps into one—the lower one being now too heavy for lifting while blasting.

**Deep Adit.**—This was discontinued on the 21st, and the four men removed to increase our force in the Babu mine. Until then, two men, day and night, were stationed there. Driven two feet six inches; length, 342 feet 6 inches.

**Reduction Works.**—The stamping-mills have not been regularly supplied with ore. The sick-list this month has been larger than usual—added to which, the decrease in our free labour force has been very considerable, and on the latter we rely chiefly for clearing the mine, and converting the ore to the spalling doors; and in their absence, we have been obliged to put borers to fill their places; this has consequently kept us backward in breaking a larger supply of stone. Every other department being now subservient to supplying the stamps, and having at the same time the stopes to work upon, I think I may venture to say, that without any unforeseen accident occurs, there will not for some time be any cause for complaint from the stamps remaining idle. The stamps have undergone the usual monthly repair and pitching. The sand from the different stamps has been concentrated and saved; three negroes, day and night, have been employed on this work. The tank-washing occupied the usual number of days and hands. A new concentrating tyne has been laid down in the arrastre-house, and a new concentrating tyne commenced.

**Surface Works.**—The heavy and continued rains the early part of the month, were a source of great inconvenience and hindrance to all our surface works. Two of the leats, the house and garden, broke away, and two parties, of six men each, were occupied nearly two days repairing the same.

**Manoas.**—Steady progress has been made by the masons in their different works. The Mingu house and another in the village have been repaired for offices of the establishment. On the 5th, a wall was commenced to secure the whim-round, the rains causing the ground round the whim to give way, and endangered the foundation of the same, rendered this work indispensable; this was completed on the 12th—thirty-nine feet long, eight feet high, and four feet thick—several labourers supplying the masons with stone; since then, with the exception of a few trifling jobs, the whole force has been employed in preparing stopes for the arrastre.

On the arrival of Mr. Leay, the stones which had been previously prepared were not considered of a sufficient degree of hardness, from the solid masses of pyrites mixed with the quartz; others have been selected, and the time lost in preparing those now thrown aside, will be more than made up by the readiness with which the present ones yield to the chisel and hammer in chipping.

J. K. A. CRICKITT.

#### WORK PERFORMED BY STEAM-ENGINES,

IN JANUARY, 1837.

(Taken from the official duty paper by Mr. THOMAS LEAN, of Marazion, Cornwall.)  
a stands for single; d for double; in, for inches.

MINES.	Engines and the Diameter of the Cylinder.	Aver. quan- water driven per min.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im. gal. Lbs.	Im.
--------	---	-----------------------------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	-----

#### STEAM-ENGINES STAMPING ORES,

IN JANUARY, 1837.

MINES.	Diameter of the Cylinder.	No. of Heads.	Consumption of Coal in bushels.	No. of Ores in tons.	Force exerted in foot lbs. per minute.	Force exerted in foot lbs. per hour.	Engineers' Names.
Ballauiden.	24 in. d.	35	998	24	18,156,944	17.04	W. Trezise.
Charlestown U.	32 in. s.	75	504	5	45,866,890	5.0	J. Sims.
Wheal Kitty.	32 in. s.	46	—	—	—	—	ditto
Wheal Vor.	24 in. s.	34	1128	24	16,841,628	17.6	Richards.
Wheal Vor.	24 in. s.	28	1288	24	15,275,726	16.5	ditto
Wheal Vor.	16 1/2 in. d.	24	1827	2	9,472,000	20.2	ditto
Wheal Vor.	20 in. d.	24	—	2.9	—	9.6	ditto

#### STEAM-ENGINES DRAWING ORES, IN JANUARY, 1837.

MINES	Engines.	Consumption of coal in bushels.	Average pressure of a kilowatt high by consuming a bushel of coal in 100 lbs.	Average velocity in pounds.	Force drawn in foot lbs. by consuming a bushel of coal.	Engineers.
East Crinnis.	Bundle's...	232	2234.36	750	4,333,887	J. Sims.
Ditto.....	Gill's.....	48	287.78	780	2,805,855	ditto.
Pembroke	Edgcomb's...	202	1248.88	960	3,561,162	ditto.
	Taylor's....	204	9619.92	634	17,938,134	
	Davey's....	316	11396.53	657	14,141,963	
	Pearce's....	147	7079.43	684	19,186,760	
Consolidated Mines.....	Elven's....	439	3420.81	657	8,846,860	Hocking and Loam.
	Deeble's...	260	6658.61	732	11,242,662	
	Woolf's....	331	9416.68	571	9,746,090	
	Bawden's..	173	4737.	748	12,360,673	
	Shears'....	30	553.23	657	7,200,442	
United Mines.....	Polderey..	239	787.4, 13	620	12,735,549	
Ditto.....	Hocking's.	202	6746.35	713	14,224,662	
Charlestown U.M.		194	3628.68	1120	12,567,520	J. Sims.



Weatherly, Newcastle-upon-Tyne, merchant—March 3, S. Cooke, Salford, merchant—March 3, G. Coombes, Chichester, brewer—March 3, W. Allen, Clapton, merchant—March 18, E. Bevan and M. Yates, merchants—March 24, G. Cowell, Wigan, cotton-spinner—March 15, J. E. B. Bath, linen-draper—March 15, J. Chorley, Liverpool, merchant—March 16, G. Grafton, Alcester, Warwickshire, tanner.

Y. Marrow, Hanley, Staffordshire, grocer—T. Hughes, Little Lever, Lancashire, paper-manufacturer—W. Williams, Liverpool, timber-dealer—F. Cooke, Kidderminster, carpet-manufacturer—T. Holcroft and G. Holcroft, Salford, Lancashire, sail-makers—S. Pontin, Tottenham-court-road, builder—P. J. Bedford, Percy-street, Bedford-square, music-seller—R. Child, Berners-street, Oxford-street, up-street, Bedford-square, music-seller—G. T. Ferrers, Golden-square, bedding-manufacturer—W. H. Phipson, Birmingham, coffee-house-keeper.

Friday, Feb. 17.

BANKRUPTS.

J. A. Crispin, St. Martin's-court, boot-maker. Solicitors, Messrs. Allen, Gliby, and Allen, Carlisle-street, Soho.

J. A. Crispin, St. Martin's-court, boot-maker. Solicitors, Messrs. Allen, Gliby, and Allen, Carlisle-street, Soho.

J. A. Crispin, St. Martin's-court, boot-maker. Solicitors, Messrs. Allen, Gliby, and Allen, Carlisle-street, Soho.

J. A. Crispin, St. Martin's-court, boot-maker. Solicitors, Messrs. Allen, Gliby, and Allen, Carlisle-street, Soho.

J. A. Crispin, St. Martin's-court, boot-maker. Solicitors, Messrs. Allen, Gliby, and Allen, Carlisle-street, Soho.

## COMMERCIAL INTELLIGENCE.

**THE COLONIAL MARKETS.**—The market for British Plantation sugars has been dull this week, with but little change in prices; the growers and refiners have purchased sparingly, yet the importers, who do not press sales, have obtained fully satisfactory results; indeed, the better qualities have realized a slight advance, and at public auction 4339 bags, chiefly low white, were brought forward, and sold at a decline of 6d. to 1s. per cwt.; fine white 32s. 6d. to 33s.; good middling 29s. to 31s. Manila has not been inquired after. Siam maintains its prices.

**INDIA SUGARS.**—There has been nothing done in these descriptions by private contract worthy of remark; at public auction 6788 bags were offered, and almost all found buyers—in some cases the brown and low sorts were rather cheaper; but upon the whole the late prices were steadily maintained.

**TEA.**—The tea market continues to support an improvement; low Congous are in demand at 1d. per lb. premium. Boheas are also inquired for. Fine Congous continue to sell at a premium of 1d. to 1½ per lb. The East India Company have postponed the prompt of the 3d of March, until the 14th of April, the holders of tea paying an additional deposit of 1½ per chest.

**HOPS.**—There is little change in the price of hops, the market continues very quiet, and but little demand for any but the finer sorts.

**WHEAT.**—The wheat market remains inactive, but in prices there is no alteration; the home trade only takes enough for immediate consumption at 4s. per cwt. for Peterborough yellow candle tall on the spot; for forward delivery, there is nothing doing.

LIVERPOOL, FEB. 15.

[FROM OUR OWN CORRESPONDENT.]

**WHEAT.**—Our market last week, as noticed in my last, continued drooping until close on Friday, when all descriptions were ½d. to ¼d. lower than the rates of the week before. The sales in all amounted to 15,500 bales, and of these 100 were for export, and 250 on speculation, being the first for several weeks. The import was large, amounting to nearly 40,000 bales. Since Friday we have experienced a quantity limited demand, the sales barely averaging 2000 per diem; and American grain ½d. to ¼d. lower, but at this reduction, holders evince more firmness; and for other descriptions last week's prices are freely obtained. Prices to-day for Fair Bredas are 8½d.; Pernambos, 11d.; Egyptian, 12d.; and Surat, 5½d. Our present stock is 260,000 bales, 130,000 of which are American, and 54,000 East India. At this time last year these quantities were severally 67,000 and 25,000, the total stock comprising 135,000 bales.

**CORN MARKET.**—Since Tuesday week the imports from Ireland and coastwise of grain, flour, and wheat, having only been to a moderate extent, the trade has been a little more anxious to increase their present small stocks, and consequently, showing more briskness than of late. At yesterday's market there was but a thin attendance of the trade, and the sales effected were on a very small scale, at a decline on last week's rates of 2d. per 70 lbs. on wheat of inferior quality, 2s. 3d. per 280 lbs. on flour, 2d. to 3d. per 45 lbs. on oats, 2s. to 3s. per 240 lbs. on oatmeal, 2s. per quarter on malt, barley, beans, and peas.

**WEDNESDAY NIGHT.**—Trade in general is very dull in Liverpool. A great many speculators are reported to have taken place, and although there have been some stoppages, much uncertainty alarm has been created. The old and wise men of the exchange are croaking, and prophecy "bad times;" but there is little doubt that, in the course of a short time, they will be considerably on the mend. A most important change is about to take place in the mode of payment for sugars and West India produce, in consequence of some of the failures above alluded to: there have been several meetings of the merchants to determine thereupon. The terms are expected to be one month's cash and two months' discount. The "Salt Association" have entered into an extension of time, and they have raised the commodity 2s. for common salt, and 2½s. for stored salt.

## CORN EXCHANGE, FEBRUARY 17, 1837.

Wheat, p. Qr. 4s to 6s; Malt, p. Qr. 5s to 6s; Oats, p. Qr. 2s to 3s; Beans, p. Qr. 3s to 4s; Peas, p. Qr. 3s to 4s; Pollard, p. Qr. 1s to 2s.

AVERAGE PRICE OF GRAIN, per Quarter.

Wheat, 1d. 3s. 2d. 3d. 4d. 5d. 6d. 7d. 8d. 9d. 10d. 11d. 12d. 13d. 14d. 15d. 16d. 17d. 18d. 19d. 20d. 21d. 22d. 23d. 24d. 25d. 26d. 27d. 28d. 29d. 30d. 31d. 32d. 33d. 34d. 35d. 36d. 37d. 38d. 39d. 40d. 41d. 42d. 43d. 44d. 45d. 46d. 47d. 48d. 49d. 50d. 51d. 52d. 53d. 54d. 55d. 56d. 57d. 58d. 59d. 60d. 61d. 62d. 63d. 64d. 65d. 66d. 67d. 68d. 69d. 70d. 71d. 72d. 73d. 74d. 75d. 76d. 77d. 78d. 79d. 80d. 81d. 82d. 83d. 84d. 85d. 86d. 87d. 88d. 89d. 90d. 91d. 92d. 93d. 94d. 95d. 96d. 97d. 98d. 99d. 100d. 101d. 102d. 103d. 104d. 105d. 106d. 107d. 108d. 109d. 110d. 111d. 112d. 113d. 114d. 115d. 116d. 117d. 118d. 119d. 120d. 121d. 122d. 123d. 124d. 125d. 126d. 127d. 128d. 129d. 130d. 131d. 132d. 133d. 134d. 135d. 136d. 137d. 138d. 139d. 140d. 141d. 142d. 143d. 144d. 145d. 146d. 147d. 148d. 149d. 150d. 151d. 152d. 153d. 154d. 155d. 156d. 157d. 158d. 159d. 160d. 161d. 162d. 163d. 164d. 165d. 166d. 167d. 168d. 169d. 170d. 171d. 172d. 173d. 174d. 175d. 176d. 177d. 178d. 179d. 180d. 181d. 182d. 183d. 184d. 185d. 186d. 187d. 188d. 189d. 190d. 191d. 192d. 193d. 194d. 195d. 196d. 197d. 198d. 199d. 200d. 201d. 202d. 203d. 204d. 205d. 206d. 207d. 208d. 209d. 210d. 211d. 212d. 213d. 214d. 215d. 216d. 217d. 218d. 219d. 220d. 221d. 222d. 223d. 224d. 225d. 226d. 227d. 228d. 229d. 230d. 231d. 232d. 233d. 234d. 235d. 236d. 237d. 238d. 239d. 240d. 241d. 242d. 243d. 244d. 245d. 246d. 247d. 248d. 249d. 250d. 251d. 252d. 253d. 254d. 255d. 256d. 257d. 258d. 259d. 260d. 261d. 262d. 263d. 264d. 265d. 266d. 267d. 268d. 269d. 270d. 271d. 272d. 273d. 274d. 275d. 276d. 277d. 278d. 279d. 280d. 281d. 282d. 283d. 284d. 285d. 286d. 287d. 288d. 289d. 290d. 291d. 292d. 293d. 294d. 295d. 296d. 297d. 298d. 299d. 300d. 301d. 302d. 303d. 304d. 305d. 306d. 307d. 308d. 309d. 310d. 311d. 312d. 313d. 314d. 315d. 316d. 317d. 318d. 319d. 320d. 321d. 322d. 323d. 324d. 325d. 326d. 327d. 328d. 329d. 330d. 331d. 332d. 333d. 334d. 335d. 336d. 337d. 338d. 339d. 340d. 341d. 342d. 343d. 344d. 345d. 346d. 347d. 348d. 349d. 350d. 351d. 352d. 353d. 354d. 355d. 356d. 357d. 358d. 359d. 360d. 361d. 362d. 363d. 364d. 365d. 366d. 367d. 368d. 369d. 370d. 371d. 372d. 373d. 374d. 375d. 376d. 377d. 378d. 379d. 380d. 381d. 382d. 383d. 384d. 385d. 386d. 387d. 388d. 389d. 390d. 391d. 392d. 393d. 394d. 395d. 396d. 397d. 398d. 399d. 400d. 401d. 402d. 403d. 404d. 405d. 406d. 407d. 408d. 409d. 410d. 411d. 412d. 413d. 414d. 415d. 416d. 417d. 418d. 419d. 420d. 421d. 422d. 423d. 424d. 425d. 426d. 427d. 428d. 429d. 430d. 431d. 432d. 433d. 434d. 435d. 436d. 437d. 438d. 439d. 440d. 441d. 442d. 443d. 444d. 445d. 446d. 447d. 448d. 449d. 450d. 451d. 452d. 453d. 454d. 455d. 456d. 457d. 458d. 459d. 460d. 461d. 462d. 463d. 464d. 465d. 466d. 467d. 468d. 469d. 470d. 471d. 472d. 473d. 474d. 475d. 476d. 477d. 478d. 479d. 480d. 481d. 482d. 483d. 484d. 485d. 486d. 487d. 488d. 489d. 490d. 491d. 492d. 493d. 494d. 495d. 496d. 497d. 498d. 499d. 500d. 501d. 502d. 503d. 504d. 505d. 506d. 507d. 508d. 509d. 510d. 511d. 512d. 513d. 514d. 515d. 516d. 517d. 518d. 519d. 520d. 521d. 522d. 523d. 524d. 525d. 526d. 527d. 528d. 529d. 530d. 531d. 532d. 533d. 534d. 535d. 536d. 537d. 538d. 539d. 540d. 541d. 542d. 543d. 544d. 545d. 546d. 547d. 548d. 549d. 550d. 551d. 552d. 553d. 554d. 555d. 556d. 557d. 558d. 559d. 560d. 561d. 562d. 563d. 564d. 565d. 566d. 567d. 568d. 569d. 570d. 571d. 572d. 573d. 574d. 575d. 576d. 577d. 578d. 579d. 580d. 581d. 582d. 583d. 584d. 585d. 586d. 587d. 588d. 589d. 590d. 591d. 592d. 593d. 594d. 595d. 596d. 597d. 598d. 599d. 600d. 601d. 602d. 603d. 604d. 605d. 606d. 607d. 608d. 609d. 610d. 611d. 612d. 613d. 614d. 615d. 616d. 617d. 618d. 619d. 620d. 621d. 622d. 623d. 624d. 625d. 626d. 627d. 628d. 629d. 630d. 631d. 632d. 633d. 634d. 635d. 636d. 637d. 638d. 639d. 640d. 641d. 642d. 643d. 644d. 645d. 646d. 647d. 648d. 649d. 650d. 651d. 652d. 653d. 654d. 655d. 656d. 657d. 658d. 659d. 660d. 661d. 662d. 663d. 664d. 665d. 666d. 667d. 668d. 669d. 670d. 671d. 672d. 673d. 674d. 675d. 676d. 677d. 678d. 679d. 680d. 681d. 682d. 683d. 684d. 685d. 686d. 687d. 688d. 689d. 690d. 691d. 692d. 693d. 694d. 695d. 696d. 697d. 698d. 699d. 700d. 701d. 702d. 703d. 704d. 705d. 706d. 707d. 708d. 709d. 710d. 711d. 712d. 713d. 714d. 715d. 716d. 717d. 718d. 719d. 720d. 721d. 722d. 723d. 724d. 725d. 726d. 727d. 728d. 729d. 730d. 731d. 732d. 733d. 734d. 735d. 736d. 737d. 738d. 739d. 740d. 741d. 742d. 743d. 744d. 745d. 746d. 747d. 748d. 749d. 750d. 751d. 752d. 753d. 754d. 755d. 756d. 757d. 758d. 759d. 760d. 761d. 762d. 763d. 764d. 765d. 766d. 767d. 768d. 769d. 770d. 771d. 772d. 773d. 774d. 775d. 776d. 777d. 778d. 779d. 780d. 781d. 782d. 783d. 784d. 785d. 786d. 787d. 788d. 789d. 790d. 791d. 792d. 793d. 794d. 795d. 796d. 797d. 798d. 799d. 800d. 801d. 802d. 803d. 804d. 805d. 806d. 807d. 808d. 809d. 810d. 811d. 812d. 813d. 814d. 815d. 816d. 817d. 818d. 819d. 820d. 821d. 822d. 823d. 824d. 825d. 826d. 827d. 828d. 829d. 830d. 831d. 832d. 833d. 834d. 835d. 836d. 837d. 838d. 839d. 840d. 841d. 842d. 843d. 844d. 845d. 846d. 847d. 848d. 849d. 850d. 851d. 852d. 853d. 854d. 855d. 856d. 857d. 858d. 859d. 860d. 861d. 862d. 863d. 864d. 865d. 866d. 867d. 868d. 869d. 870d. 871d. 872d. 873d. 874d. 875d. 876d. 877d. 878d. 879d. 880d. 881d. 882d. 883d. 884d. 885d. 886d. 887d. 888d. 889d. 890d. 891d. 892d. 893d. 894d. 895d. 896d. 897d. 898d. 899d. 900d. 901d. 902d. 903d. 904d. 905d. 906d. 907d. 908d. 909d. 910d. 911d. 912d. 913d. 914d. 915d. 916d. 917d. 918d. 919d. 920d. 921d. 922d. 923d. 924d. 925d. 926d. 927d. 928d. 929d. 930d. 931d. 932d. 933d. 934d. 935d. 936d. 937d. 938d. 939d. 940d. 941d. 942d. 943d. 944d. 945d. 946d. 947d. 948d. 949d. 950d. 951d. 952d. 953d. 954d. 955d. 956d. 957d. 958d. 959d. 960d. 961d. 962d. 963d. 964d. 965d. 966d. 967d. 968d. 969d. 970d. 971d. 972d. 973d. 974d. 975d. 976d. 977d. 978d. 979d. 980d. 981d. 982d. 983d. 984d. 985d. 986d. 987d. 988d. 989d. 990d. 991d. 992d. 993d. 994d. 995d. 996d. 997d. 998d. 999d. 1000d. 1001d. 1002d. 1003d. 1004d. 1005d. 1006d. 1007d. 1008d. 1009d. 1010d. 1011d. 1012d. 1013d. 1014d. 1015d. 1016d. 1017d. 1018d. 1019d. 1020d. 1021d. 1022d. 1023d. 1024d. 1025d. 1026d. 1027d. 1028d. 1029d. 1030d. 1031d. 1032d. 1033d. 1034d. 1035d. 1036d. 1037d. 1038d. 1039d. 1040d. 1041d. 1042d. 1043d. 1044d. 1045d. 1046d. 1047d. 1048d. 1049d. 1050d. 1051d. 1052d. 1053d. 1054d. 1055d. 1056d. 1057d. 1058d. 1059d. 1060d. 1061d. 1062d. 1063d. 1064d. 1065d. 1066d. 1067d. 1068d. 1069d. 1070d. 1071d. 1072d. 1073d. 1074d. 1075d. 1076d. 1077d. 1078d. 1079d. 1080d. 1081d. 1082d. 1083d. 1084d. 1085d. 1086d. 1087d. 1088d. 1089d. 1090d. 1091d. 1092d. 1093d. 1094d. 1095d. 1096d. 1097d. 1098d. 1099d. 1100d. 1101d. 1102d. 1103d. 1104d. 1105d. 1106d. 1107d. 1108d. 1109d. 1110d. 1111d. 1112d. 1113d. 1114d. 1115d. 1116d. 1117d. 1118d. 1119d. 1120d. 1121d. 1122d. 1123d. 1124d. 1125d. 1126d. 1127d. 1128d. 1129d. 1130d. 1131d. 1132d. 1133d. 1134d. 1135d. 1136d. 1137d. 1138d. 1139d. 1140d. 1141d. 1142d. 1143d. 1144d. 1145d. 1146d. 1147d. 1148d. 1149d. 1150d. 1151d. 1152d. 1153d. 1154d. 1155d. 1156d. 1157d. 1158d. 1159d. 1160d. 1161d. 1162d. 1163d. 1164d. 1165d. 1166d. 1167d. 1168d. 1169d. 1170d. 1171d. 1172d. 1173d. 1174d. 1175d. 1176d. 1177d. 1178d. 1179d. 1180d. 1181d. 1182d. 1183d. 1184d. 1185d. 1186d. 1187d. 1188d. 1189d. 1190d. 1191d. 1192d. 1193d. 1194d. 1195d. 1196d. 1197d. 1198d. 1199d. 1200d. 1201d. 1202d. 1203d. 1204d. 1205d. 1206d. 1207d. 1208d. 1209d. 1210d. 1211d. 1212d. 1213d. 1214d. 1215d. 1216d. 1217d. 1218d. 1219d. 1220d. 1221d. 1222d. 1223d. 1224d. 1225d. 1226d. 1227d. 1228d. 1229d. 1230d. 1231d. 1232d. 1233d. 1234d. 1235d. 1236d. 1237d. 1238d. 1239d. 1240d. 1241d. 1242d. 1243d. 1244d. 1245d. 1246d. 1247d. 1248d. 1249d. 1250d. 1251d. 1252d. 1253d. 1254d. 1255d. 1256d. 1257d. 1258d. 1259d. 1260d. 1261d. 1262d. 1263d. 1264d. 1265d. 1266d. 1267d. 1268d. 1269d. 1270d. 1271d. 1272d. 1273d. 1274d. 1275d. 1276d. 1277d. 1278d. 1279d. 1280d. 1281d. 1282d. 1283d. 1284d. 1285d. 1286d. 1287d. 1288d. 1289d. 1290d. 1291d. 1292d. 1293d. 1294d. 1295d. 1296d. 1297d. 1298d. 1299d. 1300d. 1301d. 1302d. 1303d. 1304d. 1305d. 1306d. 1307d. 1308d. 1309d. 1310d. 1311d. 1312d. 1313d. 1314d. 1315d. 1316d. 1317d. 1318d. 1319d. 1320d. 1321d. 1322d. 1323d. 1324d. 1325d. 1326d. 1327d. 1328d. 1329d. 1330d. 1331d. 1332d. 1333d. 1334d. 1335d. 1336d. 1337d. 1338d. 1339d. 1340d. 1341d. 1342d. 1343d. 1344d. 1345d. 1346d. 1347d. 1348d. 1349d. 1350d. 1351d. 1352d. 1353d. 1354d. 1355d. 1356d. 1357d. 1358d. 1359d. 1360d. 1361d. 1362d. 1363d. 1364d. 1365d. 1366d. 1367d. 1368d. 1369d. 1370d. 1371d. 1372d. 1373d. 1374d. 1375d. 1376d. 1377d. 1378d. 1379d. 1380d. 1381d. 1382d. 1383d. 1384d. 1385d. 1386d. 1387d. 1388d. 1389d. 1390d. 1391d. 1392d. 1393d. 1394d. 1395d. 1396d. 1397d. 1398d. 1399d. 1400d. 1401d. 1402d. 1403d. 1404d. 1405d. 1406d. 1407d. 1408d. 1409d. 1410d. 1411d. 1412d. 1413d. 1414d. 1415d. 1416d. 1417d. 1418d. 1419d. 1420d. 1421d. 1422d. 1423d. 1424d. 1425d. 1426d. 1427d. 1428d. 1429d. 1430d. 1431d. 1432d. 1433d. 1434d. 1435d. 1436d. 1437d. 1438d. 1439d. 1440d. 1441d. 1442d. 1443d. 1444d. 1445d. 1446d. 1447d. 1448d. 1449d. 1450d. 1451d. 1452d. 1453d. 1454d. 1455d. 1456d. 1457d. 1458d. 1459d. 1460d. 1461d. 1462d. 1463d. 1464d. 1465d. 1466d. 1467d. 1468d. 1469d. 1470d. 1471d. 1472d. 1473d. 1474d. 1475d. 1476d. 1477d. 1478d. 1479d. 1480d. 1481d. 1482d. 1483d. 1484d. 1485d. 1486d. 1487d. 1488d. 1489d. 1490d. 1491d. 1492d. 1493d. 1494d. 1495d. 1496d. 1497d. 1498d. 1499d. 1500d. 1501d. 1502d. 1503d. 1504d. 1505d. 1506d. 1507d. 1508d. 1509d. 1510d. 1511d. 1512d. 1513d. 1514d. 1515d. 1516d. 1517d. 1518d. 1519d. 1520d. 1521d. 1522d. 1523d. 1524d. 1525d. 1526d. 1527d. 1528d. 1529d. 1530d. 1531d. 1532d. 1533d. 1534d. 1535d. 1536d. 1537d. 1538d. 1539d. 1540d. 1541d. 1542d. 1543d. 1544d. 1545d. 1546d. 1547d. 1548d. 1549d. 1550d. 1551d. 1552d. 1553d.



### PRICES OF SHARE

**JOINT STOCK BANKS.**

Value of Shares.	NAME OF COMPANY.	Amount of Shares.	Amount Paid.	Price.
25,000	Agric. & Com. of Irel.	25	10	
5,000	Australasia	40	40	50
500,000	Bank of Scotland	100	550	20
10,000	Bank of Birmingham	10	10	10
10,000	Birmingham Bank	10	10	10
500,000	British Linen Co.	100	100	10
	British North Amer.		10	
1,000,000	Commercial	100	100	10
	Colonial	100	10	7
3,000	Equitable Loan Co.		9	10
10,000	Foreign Banking Co.		8	
1,000,000	Glasgow Union	50	50	10
10,000	Gloucestershire	50	10	
5,000	Halifax		5	
5,000	Hampshire	50	5	
10,000	Huddersfield	100	10	
10,000	Hibernian	100	25	
3,000	Devon & Cor. B. Co.		20	20
12,000	London & Westminster	100	20	21
3,000	LANCASTER	100	20	
25,000	Liverpool	100	10	
50,000	Manchester & Liver. Dis.	100	15	21
20,000	Manchester	100	25	
25,000	Monm. & Glamorg.	20	5	10
20,000	North & South Wales	20	21	
100,000	National Scotland	10	10	10
20,000	Natl. Bank of Ireland	5	17	21
10,000	N. Prov. of Engl.	10	10	21
1,000	N. & Cnt. B. of Engl.	10	10	
20,000	Prov. Bk. of Ireland	10	25	
4,000	Ditto New	10	10	7
100,000	Royal of Scotland		100	
	South African		6	
100,000	Western of Scotland		30	
	W. of Engl. & S.W. Dis.	20	10	

**GAS LIGHT AND COKE COMP.**

STEEL LIGHT AND COKE COMPANY		
000 Alliance, London & Lancashire	16	3
500 Bath	20	16
000 Bradford	38	34
000 British	40	16
000 Do. Provincial	40	19
028 Birmingham	50	50
000 Birm. & Staffordshire	50	50
000 Birm. & Staffordshire	50	50
250 Bristol	20	20
000 Brighton	20	20
750 Do. New	20	18
421 Brighton, General	20	20
363 Carlisle	25	—
000 Continental Consolidat.	100	62
240 Canterbury	50	50
000 Chester	50	60
000 Cheltenham	50	50
000 City of London	100	100
000 Do. New	100	100
000 Coventry	25	25
200 Derby	50	50
100 Dover	50	50
698 Dudley	20	20
000 Epsom	25	25
Edinburgh and Alloa	14	—
240 Exeter	50	50
000 Equitable	50	45
000 European	20	5
450 Glasgow	25	—
Greenwich Railw. Gas	—	4
000 Imperial	50	50
000 Ipswich	100	100
200 Ipswich	10	10
000 Isle of Thanet	25	20
850 Independent	50	50
240 Leicester	50	50
750 Litch Coal Gas	20	20
500 Liverpool	242	242
000 London & Lancashire	180	180
Do. New Do.	—	—
200 Maidstone	50	50
000 Phoenix	50	30
079 Portsea	—	53
000 Poplar	50	50
000 Ratcliff	100	80
000 Reading	15	15
000 South Metropolitan	50	19
000 Sheffield	161	—
000 Shrewsbury	10	10
20 Swansea	50	50
000 United General	50	45
40 Warwick	50	50
000 Wakefield	25	25
000 Westminister	30	30
000 Ditto New	50	40
000 Worthing	50	50
00 Yarmouth	—	—

\_\_\_\_\_

DOCKS.			
001 Commercial	100	100	56
666 East India	100	100	114
666 Ditto Additional	100	100	7
008 East Country	100	100	7
4310 London	100	100	54
Ditto Bonds	..	..	..
000 West India	100	100	106
200 Bristol	147	147	89
324 Ditto Notes	..	..	115
765 Folkestone Harbour	50	50	..
765 Folkestone Bonds	..	..	..
752 St. Katharine	100	100	92
000 Ditto Bonds	..	..	100
000 Do. Bonds for 10 years	..	..	..
Shoreham Harbour	..	..	..
500 Deptford Pier	20	3	..
000 Herne Bay Pier	..	..	..
BRIDGES.			
0 Hammersmith	50	50	20
Metropoli. Suspension	3	2	..
Southwark w. new sub.	634	634	2
Do. New 47 per cent.	50	50	14
Waterloo	704	704	134
Do. old Annuities of 84	100	100	3
Do. new do. of 71	60	60	18
Ditto Bonds	40	40	15
	..	..	118

HEATHER HONES

WATER WORKS.			
Birmingham	25	25	74
Colchester	100	100	—
East London	100	100	139
Glasgow	40	50	—
Grand Junction	25	25	84
Leamington	25	25	—
Leamington Joint Stock	100	100	65
Kent	220	220	328
Liverpool Booths	—	—	—
New River London Bridge	—	—	—
Water Annuities	—	—	—
Manchester & Salford	100	100	604
Portsea Island	50	50	—
Portsmouth & Farringdon	50	50	—
Do, New	50	50	24
500 Ramsgate	10	8	14
Vauxhall, late So. Lond.	100	100	38
West Middlesex	634	659	75
York Building Co. L. F.	100	100	38

BOARD.

Archw. and Kent Tn. ....	31	30	
Barking .....	100	100	324
Commercial .....	100	100	78
Do. East India Dock H. ....	100	100	
Great Dover Str. ....		79	
Highgate Archway. ....		307 5	3
New North Rd. Stock 100	100		
<b>LITERARY INSTITUTIONS</b>			
Adelaide Gal. of Science ..	50		
London, w. Bronze Tick. ....	788	788	
London University ....	100	100	250
Russell .....	254	254	9
King's College .....	100	100	

100

ON: Printed and Published by HARRIS,  
Proprietor, at his Office, No. 12, Great  
Street, in the City of London; where  
Communications and Advertisements are re-  
ceived, post paid.—Saturday, February

2002 93 40 42 01 18

100

100

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_